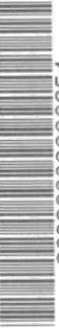


*ENVIRONMENTAL PLANNING AND ANALYSIS BRANCH*

STANDARDS DEVELOPMENT BRANCH OMOE



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***GUIDE TO STATE  
POLLUTION PREVENTION  
TECHNICAL ASSISTANCE  
PROGRAMS IN THE  
UNITED STATES***

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MOE

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1995

Guide to state pollution  
prevention technical assistance  
programs in the United States.

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GUIDE TO STATE POLLUTION PREVENTION TECHNICAL  
ASSISTANCE PROGRAMS IN THE UNITED STATES

May 1995

Ecosystem Planning Series

Environmental Planning and Analysis Branch  
Ontario Ministry of Environment and Energy

Project Team:

Sassan Ghassabeh, Steve Thompson, Chris Bahaviolos

Acknowledgements:

The project team gratefully acknowledges the input and assistance provided by the numerous individuals and agencies across the United States, that took the time to answer questions and forward information.



## PREFACE

This publication is designed to provide an overview of U.S. State Pollution Prevention Programs, focusing on technical assistance components. The Guide to State Pollution Technical Assistance Programs in the United States was compiled with information obtained by contacting various State agencies, universities and organizations that deliver Pollution Prevention programs. The review was conducted between February 1995 and April 1995. Additional information was compiled from the following three documents:

- Facility Pollution Prevention Planning- A Matrix of the Provisions, Office of Pollution Prevention, July 1993, Ohio Environmental Protection Agency, Cincinnati, Ohio
- Northeast State Pollution Prevention Programs Summary Report, Northeast Waste Management Officials' Association (NEWMOA), December 1993, Boston, Massachusetts
- The Pollution Prevention Yellow Pages, National Pollution Prevention Roundtable, September 1994, Washington D.C.

The twenty eight states that were reviewed have provisions that focus on the Resource Recovery and Conservation Act. An overview of State legislation is also included for those states that have provisions, in legislation, for facility pollution prevention plans that are either mandatory or voluntary.

The Guide is organized alphabetically by state. Each program overview provides the following information (upon availability):

- State P2 Program Summary chart
- Program Name
- Address
- Contact Person
- Phone / Fax
- Program Type
- Expertise
- P2 Media
- P2 Resources
- Services Offered
- Program Overview (Technical assistance activities and additional program elements such as grants, policy development initiatives etc..)

### Disclaimer

Due to the rapidly expanding field of pollution prevention, all technical assistance programs may not have been reviewed. It is therefore recommended that follow up with the contacts listed may be advisable in order to obtain additional detailed information. Certain agencies provided more

information than others, thus the length of each state profile should not be construed as indicative of the size of each program. Mention of programs, products, services, or organizations in this publication does not imply approval or endorsement by the Ministry of Environment and Energy.

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# ALASKA



**PROGRAM NAME:** Alaska Department of Environmental Conservation (DEC)  
Pollution Prevention and Small Business Assistance

**ADDRESS:** 3601 C Street, Suite 1334  
Anchorage, AK 99503

**CONTACT:** David Wigglesworth

**PHONE:** (907) 562-4026

**FAX:** (907) 563-6529

**PROGRAM TYPE:** State Government / Regulatory Assistance

**EXPERTISE:** Small Business / Oil Field Service / Federal Facilities /  
Measurement / Fish Processing / Small Utilities / Small Business  
Compliance Assistance / Increase Awareness / Provide Direct  
Assistance to Reduce Pollution Generation and Accidental  
Releases

**P2 MEDIA:** Solid (non-hazardous) Waste / Hazardous Waste

**P2 RESOURCES:** 2 Full-time

**SERVICES:** Information Clearinghouse / Materials Exchange / Technical  
Assistance

## PROGRAM OVERVIEW

The goal of the DEC Pollution Prevention Office is to promote environmental quality with economic benefits by helping Alaskans find ways to reduce waste. It is a non-regulatory technical assistance program. The four primary functions of the office are:

- Provide community and industrial technical assistance.
- Develop partnerships to achieve voluntary reductions in waste.
- Identify ways to incorporate pollution prevention practices into department functions.
- Provide staff support to DEC Pollution Prevention Policy Council. The Council was established to promote pollution prevention within the department.

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	•
INDUSTRY	•

*The DEC's Pollution Prevention Office provides the following services:*

- ***Pollution Prevention Technical Assistance Hotline:*** To help the public and business reduce wastes.
- ***Alaska Municipal Pollution Prevention Roundtable:*** A forum to transfer pollution prevention information to local governments.
- ***Research and Referral:*** Assistance in identifying resources and individuals with technical expertise in the area of waste reduction, recycling and research needs.
- ***Outreach:*** Educational presentations on waste reduction and recycling are made to communities, businesses, trade associations and citizen groups.
- ***Matching Grants:*** Solid waste management planning grants provide funds to support preparation of solid waste management plans. Matching grants for hazardous waste reduction provide funds to help businesses and communities evaluate waste reduction opportunities. Grants are subject to available funds.
- ***On-Site Assistance:*** On site assistance to businesses to identify waste reduction methods. Visits are consultative in nature and are not connected to any of DEC's enforcement activities.
- ***Partnerships:*** Help business groups and associations establish voluntary pollution prevention programs such as the Anchorage Chamber of Commerce "Green Star" Program.
- ***Demonstration Projects:*** Assistance to agencies and businesses in developing and implementing pollution prevention plans.
- ***Awards Program:*** Schools, individuals, consumers and organizations are recognized for their pollution prevention efforts.

The office also develops and publishes technical resource material including; fact sheets, the *Pollution Prevention Resource Guide*, and the *Pollution Prevention Bulletin* (an 8-page quarterly newsletter). Other activities include pollution prevention conferences, and a technical information resource library.



## ARIZONA

### STATE P2 PROGRAM SUMMARY

**PROGRAM NAME:** Arizona Department of Environmental Quality  
Pollution Prevention Unit

**ADDRESS:** 3033 North Central Avenue  
Phoenix, Arizona, 85012

**CONTACT:** Linda Allen

**PHONE:** (602) 207-4247

**FAX:** (602) 207-4346

**PROGRAM TYPE:** State Government / Non-Regulatory Office in Regulatory Agency /  
P2 Assistance

**EXPERTISE:** Electroplating / Fabricated Metals / Solvent Wastestreams /  
Sludge / Vehicle Maintenance

**P2 MEDIA:** Multi-Media

**P2 RESOURCES:** 2 Full-time /\$150 000 (funded by hazardous waste generators fee)

**SERVICES:** On-Site Consultation / Computer Searches or Other Electronic  
Assistance / Training / Seminars / Workshops

### PROGRAM OVERVIEW

This program consists of a database operation, the dissemination of waste minimization information to the public and industries, assistance to industry through the use of a clearinghouse, on-site technical assistance, curriculum development, demonstration grants, pollution prevention awards, a pollution prevention newsletter, sponsorship of waste minimization seminars and teleconferences in cooperation with universities and industries, and a speakers bureau.

Under State law, the facilities with certified pollution prevention plans receive a 50% discount in Hazardous Waste Management fees, resulting in substantially reduced expenditures. State legislation also requires that toxic substance and hazardous waste producers prepare and implement P2 plans addressing the reduction in the use of such substances.

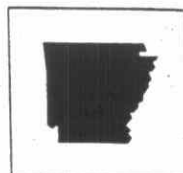
On-Site Technical Assistance is provided free on a non-regulatory basis and is intended to provide assistance to facilities in identifying pollution prevention opportunities. Staff that conduct on-site technical assistance are typically engineers or scientists. Staff receive training to conduct assessment usually on-the-job however some staff, have attended EPA workshops.

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TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
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BY PETITION	
BY INDIVIDUALS	
BY AGENCY	•
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	•
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	•
INDUSTRY	•



## ARIZONA FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• H.B. 1212, 1991
<b>KEY WORD USAGE</b>	• Pollution Prevention improvements in management that reduce potential or actual releases of pollutants.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	<ul style="list-style-type: none"> <li>• An owner/operator of a facility shall prepare and implement a pollution prevention plan addressing reductions in the use of toxic substances and generation of hazardous waste by Jan. 1, 1994.</li> <li>• By Dec. 31, 1992: A facility that shipped off site for purposes other than recycling an average of 1Kg or more per month of acutely hazardous waste.</li> <li>• By Dec. 31, 1995: from 10,000 kg to 12,000 kg of hazardous wastes in 1994.</li> <li>• After Dec. 1998: Known or suspected human health effects, ie. bioaccumulative and / or, teratogenic compounds deemed necessary by the Director.</li> </ul>
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• Encourage pollution prevention whenever technically and economically practicable, without shifting risks from one part of a process, environmental medium or product to another.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Techniques that reduce potential or actual releases of pollutants to the environment by: toxic use reduction, recycling, minimization of waste, reuse, reclamation or substitution / proportionate changes in the total volume, quantity or toxicity of a particular pollutant / on-site or off-site treatment, if it can be shown that the treatment confers a higher degree of protection to the public health, safety and the environment than other technologically and economically practicable waste reduction alternatives.
<b>GUIDELINES FOR FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>• The name, location, phone number, of the owner / operator, as well as the business activity.</li> <li>• Certification by management that the performance goals set forth in the prevention plan are formally endorsed by the corporation to achieve the set performance goals.</li> <li>• A statement of the plans objective identifying opportunities to eliminate or reduce toxic release and hazardous waste generation.</li> <li>• Employee awareness training, management incorporation, and option description of consideration framework.</li> </ul>
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Specific numeric goals are required to be designated by each facility preparing a plan and must, at a minimum, cover a two-year time table.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Reports are to be filed annually, and contain the following: analysis of the progress made in prevention source reduction, and waste minimization relative to the performance goals set.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• A facility that causes a one-time release of hazardous waste or an acutely hazardous waste from an unused hazardous substance, if the following conditions are met: the unused substance can not be used due to changes in statute or regulation.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• The Arizona legislature and the Governor have rule making authority.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Owner / operators are required to prepare and implement a plan. The time frame for submission is determined by the amount and type of waste that the owner / operator produces, however all plans cover a 2 year period. The plan is reviewed by the Department of Environmental Quality and remains in effect until the facility ceases to exist or the facility no longer meets the quantitative threshold requirement.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• A facility is required to submit a progress report annually, including performance of program amendments to the submitted plan.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Non-compliance will result in any of the following: prepare a plan or report at the facility's expense, judicial enforcement with an administrative order, including contempt.
<b>PLAN APPROVAL CRITERIA</b>	• Plans and reports will be deemed adequate unless the Dept. of Environmental Quality notifies the facility in writing of any deficiencies within 90 days.



ARKANSAS

## ARKANSAS

**PROGRAM NAME:** Arkansas Industrial Development Commission

**ADDRESS:** One State Capital Mall  
Little Rock, AR 72201

**CONTACT:** Ed Davis

**PHONE:** (501) 682-7322

**FAX:** (501) 682-7341

**PROGRAM TYPE:** State Government / Non-Regulatory Office / P2 Assistance /  
Regulatory Assistance

**EXPERTISE:** Municipal Solid Wastestreams / Database and Information  
Management

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Wastewater /  
Air Emissions / Multi-Media

**P2 RESOURCES:** 2 Full-time / 1 Part-time

**SERVICES:** On-site Consultations / Assist Customers in Developing P2 Plans /  
Computer Searches or other Electronic Assistance / Research and  
Collaborative Projects

### PROGRAM OVERVIEW

The commission conducts pollution prevention audits and provides technical assistance to all classes of manufacturers for all classes of waste. It serves as the Green Lights partner for Arkansas government agencies. The Industrial Energy Conservation Program provides energy audits and technical assistance to manufacturers and government buildings as a free service and provides recommendations for cutting and conserving energy.

*Technical Assistance is Carried Out Through the Following Activities:*

**Waste Minimization Program:** 80 to 120 (SIC 20-39) manufacturing firms are visited annually assisting with information on waste reduction and elimination opportunities, and waste and by-product markets. Visits are at the request of industry. Manufacturing, purchasing, and material handling processes are evaluated, and recommendations on tuning, material substitution, and technology upgrading are made, in a report format. To date the commission has assisted over 700 companies in Arkansas.

### STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	•
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	
COMMUNITIES	
INDUSTRY	•



**Waste Exchange:** The commission publishes and distributes the Arkansas Manufacturers Exchange to 3,700 companies. The commission also is responsible for the distribution of the Industrial Material Exchange Service which is published by the Illinois EPA and the Illinois Chamber of Commerce. This publication covers 38 states and Canada.

**VIP2 (Voluntary Industrial Pollution Prevention):** Was initiated to support the Federal 33/50 Program to achieve reductions of 17 priority pollutants. The program provides local in plant technical assistance, and regional recognition of industry achievements.

**Scrap Match:** Helps manufacturers market their scrap and waste material. It consists of a computerized database that contains industrial waste materials and scrap material markets. Individual companies are shown how to preserve residual value in their waste.

**Advocacy:** Serves as an industrial liaison with government agencies. Provides help with regulatory problems and in exploiting opportunities that exist for industry in the market place.

# CALIFORNIA



CALIFORNIA

**PROGRAM NAME:** California Department of Toxic Substances Control  
Office of Pollution Prevention and Technology Development  
(OPPTD)

**ADDRESS:** PO Box 806  
Sacramento, CA 95812-0806

**CONTACT:** David Hartley

**PHONE:** (916) 322-3670

**FAX:** (916) 327-4494

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory  
Agency / P2 Assistance

**EXPERTISE:** Printing and Publishing / Organic Chemicals / Inorganic  
Chemicals / Petroleum Refining / Stone, Glass, and Clay / Primary  
Metal Industries / Electroplating / Coating and Engraving / All  
other Fabricated Metal / Electrical and Electronic Equipment /  
Incinerable Wastes / Vehicle Maintenance / Dry Cleaners /  
Construction & Demolition / Dry Cleaners / Database and  
Information Management / Training / Legislation

**P2 MEDIA:** Hazardous Waste / Multi-Media

**P2 RESOURCES:** 20 Full-time / 4 Part-time  
\$3,000,000 (Waste taxes / Federal trust fund / Federal receipts  
fund)

**SERVICES:** On-site Consultations / Help Customers Develop P2 Facility Plans  
/ Review and Evaluate Facility Plans / Training, Seminars,  
Workshops / Grants and Loans / Research and Collaborative  
Projects / Community Based P2 Projects

## PROGRAM OVERVIEW

The Department conducts waste-stream-specific and industry-specific studies of hazardous waste to identify waste minimization opportunities, as well as industry-specific audit studies. It also implements the Hazardous Waste Reduction Grant Program, which provides grants for the research and development of hazardous waste reduction, recycling, and treatment technologies and under specified conditions provides grants to cities, counties, and private organizations for the commercial demonstration of these technologies. The Department also provides technical support to local government pollution prevention programs through participation in discussions of pollution

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	•
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	•
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•

prevention policies, dissemination of new publications, technical presentations, and it administers grants to local government programs. A variety of research, development, and demonstration programs promote waste minimization, recycling, and treatment technologies for California's hazardous-waste-generating industries.

The recent implementation of the Hazardous Waste Source Reduction and Management Review Act has led to the Department beginning a facility source reduction planning program. The Department also administers grants to California counties to develop small business assistance programs, including developing hazardous waste collection programs for small-quantity generators and providing pollution prevention assistance.

The Department implements a Technology Clearinghouse as well as various technology transfer outreach programs. The Department also participates in the Paint Recycling Task Force, which is dedicated to creating a positive and convenient environment for manufacturers and consumers to safely recycle paints and works to introduce new markets for recycled paint. In addition, the Department also integrates facility compliance assistance inspections with pollution prevention inspections through consultative seminars.

*Additional Elements of the Pollution Prevention Programs Include:*

- Joint project with U.S. EPA, such as the Waste Reduction Innovative Technology Evaluation (WRITE) program, where the Department works to identify, evaluate and demonstrate innovative engineering and scientific technologies developed for minimizing hazardous waste generation.
- Hazardous Waste Reduction Award, to recognize industry waste minimization accomplishments.
- Ongoing publication of the "California Waste Exchange-Newsletter/Catalog", which contains information related to hazardous waste recycling, reuse and recovery. On-going publication of the "Directory of Industrial Recyclers" which assists generators in complying with recycling requirements.
- Ongoing assistance to the regulated community in the interpretation of the complicated recycling laws and regulations.

The Department demonstrates the economic and environmental benefits of source reduction approaches, makes technical information available to business, and supports local government programs that directly assist businesses in reducing their waste generation. OPPTD accomplishes this by financing research and demonstration projects, developing pollution prevention educational and technology transfer materials, providing speakers for workshops and events, developing and administering symposia and training, providing funding and helping organize local government programs. The Department works closely with local agencies to support their work with generators. Local governments work directly with industry to reduce waste generation while the State program directly supports these efforts.

The Department is incorporating pollution prevention in every major program element: surveillance, enforcement, permitting, and even site cleanup. Efforts are underway to develop training materials and information for surveillance and enforcement staff that can be distributed to generators and facility operators. Settlements involving pollution prevention options are investigated for enforcement cases. Permit writers are looking at not just designs for treatment, storage, and disposal facilities, but also at source reduction options that can be included in permit requirements.

## CALIFORNIA FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• S.B. 14 Hazardous Waste Reduction and Management Review Act (1989)
<b>KEY WORD USAGE</b>	• Pollution Prevention: to encourage all state Departments to promote the reduction of environmentally harmful releases to all environmental media.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Generators who, by site, routinely generate, through ongoing processes and operations, more than 12,000Kg of hazardous waste per year or more than 12Kg of extremely hazardous waste per year.
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To reduce the generation of hazardous waste; to reduce chemical contaminant releases.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Source Reduction / Recycling / Treatment.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Name, location, SIC code of site / Identification of hazardous waste streams which result from ongoing processes or operations that have an annual volume less than 5% total annual volume; or extremely hazardous waste less than 5% total annual volume / Estimate of quantity of hazardous waste generated / Evaluation of viable source reduction options / Specifications of, and rationale for, source reduction measures which will be taken for each waste stream; rationale for rejecting any available source reduction approach / Evaluation and quantification of effects of chosen source reduction measures on emissions and discharges to air, water or land / Timetable for making reasonable and measurable progress towards implementing source reduction measures.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Specific numeric performance goals are not required, however, a plan must include a timetable for making reasonable and measurable progress toward implementing selected source reduction methods.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Name, location, SIC code of site / Estimate of quantity of hazardous waste generated and managed, on-site and off-site, during the current reporting year and baseline reporting year / Assessment of the effect, during the current year, of each hazardous waste generation reduction measure, including source reduction, recycling and treatment procedures / Description of factors during the current year that have affected on-site and off-site hazardous waste generation since the baseline year / Certification by a professional engineer, process or operations personnel on-site; environmental assessor with expertise in hazardous waste management.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Selected measure is not technically feasible or economically practicable / Attempts to implement the measure reveal that it would result in: increased hazardous waste generation; increased hazardous chemical releases to other environmental media; adverse impacts on product quality; or significant increase in risks of an adverse impact to human health or environment.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• DHS shall adopt regulations to establish procedures for exempting generators where the department determines no source reduction opportunities exist.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• The Department of Health Services is given authority to adopt regulations to carry out hazardous waste reduction.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Every two years DHS shall select at least 2 categories of generators by SIC code with potential for source reduction and must examine those source reduction evaluation reviews and plans to assure compliance with statutory requirements • DHS may request a copy of a source reduction evaluation review and plan or plan summary from any generator and may evaluate any document to determine whether it satisfies statutory requirements. Generators must retain a copy of the current review plan at each site.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• DHS may request a copy of a hazardous waste management performance report or report summary from any generator and may evaluate any of these documents to determine whether it satisfies statutory requirements. • Every four years, generators must prepare a hazardous waste management performance report and summary.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Civil penalties in an amount not greater than \$1000 may be imposed if a generator fails to submit a revised source reduction evaluation review and plan, plan summary, hazardous waste management performance report or report summary / DHS may seek an order directing compliance.
<b>PLAN APPROVAL CRITERIA</b>	• DHS shall only determine whether the document is complete, prepared and implemented in accordance with the statute.



# COLORADO



**PROGRAM NAME:** Colorado Department of Public Health & Environment (CDPHE)  
Pollution Prevention Waste Reduction Branch

**ADDRESS:** 4300 Cherry Creek Drive South  
Denver, CO 80220

**CONTACT:** Parry W. Burnap

**PHONE:** (303) 692-3009

**FAX:** (303) 782-4969

**PROGRAM TYPE:** State Program / Non-Regulatory Office in a Regulatory Agency /  
P2 Assistance / Regulatory Assistance

**EXPERTISE:** Hazardous Waste / Legislation

**P2 MEDIA:** Multi-media

**SERVICES:** On-Site Assistance / Training, Workshops, Seminars / Policy  
Development

## PROGRAM OVERVIEW

This Office handles policy development through the incorporation of pollution prevention into regulatory programs, such as permitting and enforcement. Multimedia members of a Total Quality Management Team identify and address opportunities for and obstacles to pollution prevention. The Office also has a technical assistance program (with an information centre and on-site assistance), an information clearinghouse, a technical library, and outreach to help build pollution prevention capacity in local governments and tribes. It sponsors workshops and develops and distributes industry-specific fact sheets. The unit implements the Colorado Pollution Prevention Act of 1992, which includes the coordination of the governor-appointed Pollution Prevention Advisory Board and the administration of a Pollution Prevention Fee and Grants Program.

### *Highlights of the Program:*

#### *Implementation of the Pollution Prevention Act of 1992*

- The Colorado Pollution Prevention (P2) Act of 1992, established an advisory board appointed by the Governor and given the responsibility for policy guidance, coordination advice, and to administer the pollution prevention grants program funded through modest fees on businesses that use hazardous substances.

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
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TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	•
INDUSTRY	•

#### *Pollution Prevention Fee*

- The fee system created by the P2 Act applies to businesses which report under SARA Title III. Basically, the fee is \$10 per hazardous substance reported under Section 312 of SARA and \$25 per hazardous substance reported under section 313. The P2 office administers the collection of these fees.

#### *Pollution Prevention Grants Program*

- The P2 fee is used to fund grants for pollution prevention education and technical assistance activities for small and medium-size businesses. The P2 Waste Reduction Branch and the CDPHE administer this grant program.

#### *Pollution Prevention Team*

- A team, led by the P2 program manager and made up of one representative from each of the Divisions of the CDPHE Office of Environment, has been formed to facilitate the integration of P2 into all of the Department's regulatory programs and activities. The team has identified P2 opportunities in the areas of rule making, permits, inspections, enforcement and education.

#### *CDPHE P2 Policy*

- The Department has adopted a Pollution Prevention Policy which highlights, (in each of the areas listed above), how the regulatory programs can send a consistent message that pollution prevention is the "environmental management tool of first choice" in Colorado. The general approach is to create new voluntary incentives for P2 and to remove obstacles and disincentives which may exist, rather than to seek new regulatory requirements for Pollution Prevention methods or technologies.

#### *Local Governments / Tribes*

- Several local health departments' Air programs and several local wastewater pre-treatment programs, in addition to Colorado's two Indian tribes, have developed or are beginning to develop P2 Programs. The CDPHE P2 program is playing an active role in sharing information and training with these local programs to help them get started, as well as providing funds through two types of federal grants and through grants from the Pollution Prevention Advisory Board.

#### *Pollution Prevention Library*

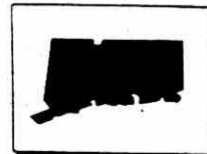
- The CDPHE P2 Library contains current technical information on P2 opportunities for specific industrial processes or types of small businesses. The information is made available to businesses in Colorado for minimal fees. The library currently handles approximately 100 information requests per year.

#### *Education / P2 Workshops*

- The CDPHE P2 Program coordinates several P2 workshops per year, working together with industry trade associations. These workshops focus on providing current regulatory information as well as pollution prevention information to help specific industries or types of businesses reduce emissions and wastes, achieve compliance and hopefully save money.

#### *Technical Assistance through Site Visits*

- The P2 Program's staff also assists businesses directly through site visits and pollution prevention assessments. Since the CDPHE Program is non-regulatory, staff are not required to report apparent violations (unless there is an "imminent threat to human health or the environment"). The P2 Program has done over 30 P2 assessments / site visits since the inception of the program, which are useful in helping businesses to develop an on-going commitment to P2, as well as to identify immediate opportunities to reduce wastes and/or emissions through P2.



# CONNECTICUT



## STATE P2 PROGRAM SUMMARY

**PROGRAM NAME:** Connecticut Technical Assistance Program (ConnTap)

**ADDRESS:** 50 Columbus Blvd. 4th Floor  
Hartford, CT 06106

**CONTACT:** Rita Lomasney

**PHONE:** (203) 241-2017

**FAX:** (203) 244-2017

**PROGRAM TYPE:** State Government / Non-Regulatory Office / P2 Assistance

**EXPERTISE:** Primary Metal Industries / Electroplating / Coating and Engraving  
/ All Other Fabricated Metal / Machinery / Electrical and  
Electronic Equipment / Financial Assistance

**P2 MEDIA:** Hazardous Waste / Wastewater

**P2 RESOURCES:** \$ 450 000 (State Funding: Waste Taxes / Federal Grant)  
3 Full-time / 7 Part-time

**SERVICES:** On-site Consultations / Hotline / Resource Centre / Computer  
Searches / Training, Seminars, Workshops / Grants and Loans

### PROGRAM OVERVIEW

This program offers technical assistance through a resource centre (telephone assistance) and on-site visits, financial assistance through the Matching Challenge Grant Program, and loans, and a quarterly newsletter. The program also sponsors conferences and workshops. ConnTap's mission is to provide technical assistance to Connecticut industries, municipalities and individuals on the proper management and minimization of waste. ConnTap's focus is on promoting pollution prevention for hazardous waste, air emissions and wastewater discharges.

Providing technical assistance to telephone requesters is the major activity of the program. ConnTap has also offered on-site pollution prevention assessments through its Site Visit Program. The program has one administrator and five experienced industry professionals, who serve as site visit representatives. Graduate students from the University of Connecticut are also employed through an internship program providing technical assistance on various projects.

- ConnTap also operates a Waste Exchange Program and develops pollution prevention

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•

guidance documents and fact sheets and sponsors workshops for industry. ConnTap is separate from the state regulatory program, (CT Department of Environmental Protection - DEP). ConnTap co-sponsors conferences with DEP and has provided pollution prevention training to DEP staff.

- In 1992, ConnTap launched the site visit program that has since saved money for 47 Connecticut businesses. The Site Visit Program provides businesses with the technical expertise to minimize hazardous waste generation and consequently save money.
- The ConnTap program provides businesses access to human resources by having access to experienced industry professionals that can relate to business concerns. Connecticut businesses are also given references to business people who have used the Site Visit Team to address similar problems. The ConnTap program also provides businesses with results, in terms of reduced pollution. Businesses are also informed of the anticipated date that pollution prevention investments will be recouped.

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**PROGRAM NAME:** Connecticut Department of Environmental Protection  
Bureau of Waste Management

**ADDRESS:** 79 Elm Street  
Hartford, CT 06106-5127

**CONTACT:** Mary Sherwin

**PHONE:** (203) 566-5217

**FAX:** (203) 566-4924

**PROGRAM TYPE:** P2 Assistance / Government Office

**EXPERTISE:** Financial Assistance / Inter-Agency P2 Coordination

**P2 MEDIA:** Multi-Media

**SERVICES:** Regulatory Assistance / Non-Regulatory Technical Assistance Outreach for Specific Projects / Policy Development / Funding Assistance

#### **PROGRAM OVERVIEW**

The pollution prevention office coordinates the technical assistance activities of the Department, for example public forums and industry meetings, in conjunction with general permits, enforcement orders and compliance inspections. Examples of these types of projects include pollution prevention guidance for small businesses that must comply with general permits. Target industries are provided with on-site technical assistance. The primary function of this program is to assist the DEP in coordinating the integration of pollution prevention into regulatory programs.



**CONNECTICUT FACILITY POLLUTION PREVENTION PLANNING  
LEGISLATION**

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• H.B. 6022
<b>KEY WORD USAGE</b>	• Toxic Pollution Prevention: to encourage all state departments to promote the reduction of environmentally harmful releases to all environmental media.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Voluntary Program, no plan required
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• Business participation in pollution prevention activities will result in reduced risks to the environment and the health of the workers and consumers.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Changes in production processes, practices, raw materials or products that reduce or eliminate the generation of by-products without creating new risk concerns or that protect natural resources through their conservation.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Not specified.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Not specified.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Not specified.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Not specified.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	The Development Authority shall adopt provisions to carry out the Act.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Not specified
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• Not specified.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Not specified.
<b>PLAN APPROVAL CRITERIA</b>	• Not specified.

# DELAWARE



DELAWARE

**PROGRAM NAME:** Delaware Department of Natural Resources and Environmental Control (DNREC)  
Pollution Prevention Program

**ADDRESS:** P.O. Box 1401, 89 Kings Highway  
Dover, DE 19903

**CONTACT:** Andrea Farrell

**PHONE:** (302) 739-3822

**FAX:** (302) 739-5060

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory Agency / P2 Assistance

**LEGISLATION:** Waste Minimization / Pollution Prevention Act 1990  
H.B. 585

**EXPERTISE:** Food and Kindred Products / Non-Hazardous Industrial Waste / Retail / Industrial Roundtable / Networking

**P2 MEDIA:** Solid (non-hazardous) Waste / Multi-Media

**P2 RESOURCES:** 3 Full-time / 1 Part-time  
\$ 204,900 ( State and Federal grant funding)

**SERVICES:** On-Site Consultations / On-Site Assessments / Computer Searches or Other Electronic Assistance / Training, Seminars, Workshops / Industry Roundtable Meetings

## PROGRAM OVERVIEW

This program provides technical assistance through the University of Delaware. It offers industry-specific pollution prevention guides, a waste reduction self-evaluation manual for manufacturers, and an information clearinghouse located in the Delaware Development Office. The program sponsors industry and public workshops, the Pollution Prevention Industry Roundtable, and the Northeast Industrial Waste Exchange. Other programs offered are the TRI emissions reduction initiative, multi-media permitting and compliance program development, the Usable By-products Advisory Group, and the Green Industries Initiative (which includes financing, tax credit, and regulatory assistance program).

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	•
INDUSTRY	•

Since its establishment in 1990, the Pollution Prevention Program has become a cooperative effort among several state agencies, industry, educational institutions, and civic and environmental organizations. These joint efforts provide technical assistance and information to businesses, industry, agriculture, government agencies and households on their waste reduction efforts.

*The program takes a multi-media approach to pollution prevention initiatives and offers several distinct programs:*

- **Secretary's Award Program for Excellence in Pollution Prevention:** Created in 1992 to give special recognition to companies or facilities that have implemented innovative source reduction solutions to their waste problems.
- **DNREC Staff Training:** To be more responsive to the needs of facilities and to incorporate the waste reduction ethic throughout DNREC, all DNREC permitting program staff and management receive pollution prevention training. The training includes an outline of procedure for the incorporation of pollution prevention into the regulatory work program. The training is followed by cross-training in the Air, Hazardous Waste and Solid Waste fields to improve understanding and coordination among the various programs.
- **Regulatory Integration:** The National Pollutant Discharge Elimination System (NPDES) Program, proposed NPDES program regulations for opportunities to incorporate pollution prevention. The revised regulations embrace the concept of pollution prevention as the preferred waste management method and provide incentives for facilities to reduce their discharge through pollution prevention. These draft regulations serve as the model for many other states as they review their NPDES regulations.
- **Multi-Media Pilot Permitting Project:** Multi-media permitting, issuing a facility-wide permit covering air and wastewater releases, is often viewed as a means to facilitate pollution prevention. To evaluate the feasibility of implementing some form of multimedia permitting in Delaware, a Multimedia Pilot Permitting Project is being undertaken.
- **Publications:** Pollution prevention guides have been produced for Building Construction and Demolition, Metal Fabricators, Printers, Auto Repair Shops, General Business, Dry Cleaners, Small Chemical Manufacturing Operations, Fleet Management, and offices.
- **Voluntary Reduction Program:** The Toxic Release Inventory (TRI) is a system for reporting releases and transfers of toxic chemicals that result from manufacturing operations. Twenty of Delaware's TRI reporters are participating in the Voluntary Program. The goal of the TRI reporting structure is to reduce all TRI emissions by 50% statewide by the end of 1995.
- **DELWRAP:** Established at the University of Delaware, in 1991, the Delaware Waste Reduction Assistance Program provides on-site, facility specific waste reduction technical assistance to Delaware's small and medium-sized businesses. Approximately 10 companies a year receive on-site assistance from this program.
- **Green Industries Initiative:** Pollution prevention and economic development are jointly addressed through the Green Industries Initiative. The Green Industries Initiative offers financial and technical assistance to companies that utilize recycled materials in their manufacturing processes, process recyclable materials in their manufacturing processes, process recyclable materials, collect and distribute recyclable materials, or significantly reduce their waste generation.
- **Information Clearinghouse and Bulletin Board:** General waste reduction information is made available to all Delaware businesses through the Waste Minimization / Pollution Prevention Clearinghouse.
- **Waste Exchange:** Waste exchanges have been established to facilitate the buying and selling of waste materials.

**DELAWARE FACILITY POLLUTION PREVENTION PLANNING  
LEGISLATION**

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• H.B. 585 1990 Waste Minimization/ Pollution Control Act / Department of Natural Resources and Environmental Control
<b>KEY WORD USAGE</b>	• Reduction or elimination of waste by reusing and/or recycling. • If not possible, treat waste, if not possible disposal.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Voluntary program, no plan required.
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To enhance the protection of human health and the environment, and to establish a multi-media Waste Minimization / Pollution Prevention Program which will demonstrate and facilitate the potential for pollution prevention.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Where possible, waste should be eliminated or reduced. If produced, it should be recovered, reused, recycled, treated or disposed of in a manner that minimizes threats to the human or environmental health.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Not specified.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Not specified.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Not specified.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Not specified.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• Not specified.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Not specified.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• Not specified.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Not specified.
<b>PLAN APPROVAL CRITERIA</b>	• Not specified.





# FLORIDA

## STATE P2 PROGRAM SUMMARY

**PROGRAM NAME:** Florida Department of Environmental Resource Management  
Pollution Prevention Program

**ADDRESS:** 33 SW Second Ave. Suite 800  
Miami, FL 33130

**CONTACT:** Lori Cuniff

**PHONE:** (305) 372-6804

**FAX:** (305) 372-6729

**PROGRAM TYPE:** County Government / Non-Regulatory Office in a Regulatory  
Agency / P2 Assistance

**EXPERTISE:** Electroplating / Vehicle Maintenance / Painting / Plan  
Implementation / Lighting

**P2 MEDIA:** Multi-Media

**P2 RESOURCES:** 3 Full-time / 1 Part-time  
\$ 190,000

**SERVICES:** On-site consultations / On-site Assessments / Training, Seminars,  
Workshops / Review and Evaluate Facility Plans / On-site  
Training

### PROGRAM OVERVIEW

This program has developed a local government demonstration project using Federal and State funds. Dade County's Environmental Resources Management Office has established this multi-media non-regulatory program, whose elements include workshops, on-site technical assistance, development of educational materials, a quarterly newsletter, and a library.

#### *Waste Minimization Assessments*

- The program provides free technical "waste minimization assessments" to selected facilities. Staff assess facility processes, procedures, layout and materials usage, etc. Options are then presented on methods available to minimize waste and improve overall efficiency. The company may choose to accept and implement all, some or none of the options presented.

#### *Workshops and Training*

- Workshops are periodically offered. These are typically industry or process specific. Guest speakers include experts in the field as well as representatives from facilities that

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•

have already implemented changes to pass along real life experiences. Assistance is available for associations or organizations that are interested in co-sponsoring workshops or training. This includes companies that wish to organize in-house training for large staff.

#### *Library*

- An extensive collection of technical materials is available to companies that wish to do research. This includes information fact sheets, articles, booklets, books, software, vendor brochures, video tapes, etc.

#### *Pollution Prevention Quarterly*

- This publication is published every three months and offers the latest information about issues related to P2. Through P2, businesses are able to gain a competitive edge and protect the environment at the same time.

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**PROGRAM NAME:** Florida Department of Environmental Regulation  
Pollution Prevention Regulatory Incentive Program  
Waste Reduction Assistance Program

**ADDRESS:** 2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**CONTACT:** Janeth A. Campbell / John Scarboro

**PHONE:** (904) 488-0300

**FAX:** (904) 921-9229

**PROGRAM TYPE:** State Government / Non-Regulatory Office in Regulatory Agency / P2 Assistance

### **PROGRAM OVERVIEW**

#### *Pollution Prevention Regulatory Incentives Program*

- This program is designed to remove regulatory barriers to preventing pollution, provide information on incentives to pollution prevention, offer a "pollution prevention choice" in enforcement actions, and develop education systems to provide pollution prevention and control training opportunities.

#### *Waste Reduction Assistance Program*

- This program provides confidential and non-regulatory multimedia help to reduce emissions to air, water, and land, as well as on-site pollution prevention technical assistance. It has a computerized Waste Reduction Information Clearinghouse. The program also offers technology transfer, environmental education, and industry-specific workshops, and trains local government inspectors and retired engineers to provide waste reduction information to businesses.

# FLORIDA FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• S.B. 1120, 1991
<b>KEY WORD USAGE</b>	• Toxic Pollution Prevention: includes changes in production that reduce or eliminate the generation of by-products without creating new risks for humans or the environment.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Voluntary Program, no plan required
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To develop and implement strategies to prevent pollution including public information programs and educational programs.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Preventing and reducing pollution at its source / Recycling / Treatment / Disposal.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Not specified.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Not specified.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Not specified.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Not specified.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• The Pollution Prevention Council has no rule making authority
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Not specified.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• Not specified.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Not specified.
<b>PLAN APPROVAL CRITERIA</b>	• Not specified.

# GEORGIA



**PROGRAM NAME:** Georgia Department of Natural Resources  
Pollution Prevention Assistance Division

**ADDRESS:** 7 Martin Luther King, Jr. Drive Suite 450  
Atlanta, GA 30334

**CONTACT:** Janice S. Hatcher

**PHONE:** (404) 651-5120

**FAX:** (404) 651-5130

**PROGRAM TYPE:** State Government / Non-Regulatory Office / P2 Assistance

**EXPERTISE:** Petroleum Refining / Rubber and Plastic Products / All other  
Fabricated Metal / Machinery (except electrical) / Electrical and  
Electronic Equipment / Medical Products / Training / Financial  
Analysis

**P2 MEDIA:** Hazardous Waste / Multi-Media

**P2 RESOURCES:** 9 Full-time / 4 Part-time  
\$ .6 Million State funding: general funds  
\$ .86 Million State funding: waste taxes  
\$ .6 Million State funding: other  
\$ .25 Million Federal Grant funding

**SERVICES:** On-Site Consultations / On-Site Assessments / Assist Customers  
in Development and Implementation of an Institutional Pollution  
Prevention Plan / Computer Searches and Other Electronic  
Assistance / Training, Seminars, Workshops / Grants and Loans /  
Research and Collaborative Projects / For larger (Technically  
Proficient, Financially Able) Companies, the Emphasis is on  
Assistance in Planning and Developing In-House Expertise

## PROGRAM OVERVIEW

The Pollution Prevention Assistance Division (P2 AD) was formed in 1993 as the newest division of the Georgia Department of Natural Resources. P2 AD's mission is to promote pollution prevention activities within the state. All of the state's pollution prevention efforts are contained in this division, including efforts aimed at air and water pollution, industrial wastes, and hazardous / toxic materials.

P2 AD offers a variety of information and programs to assist Georgia's citizens and businesses. The Division sponsors workshops and training sessions. A clearinghouse /

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	•
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	•
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•



library containing periodicals and technical documents relating to pollution prevention is available to the public. Additionally, P2 AD's engineers, in cooperation with the Georgia Tech Research Institute and a group of retired engineers, offer free, non-regulatory on-site assessments to help companies identify and implement pollution prevention activities specifically for their processes. The University of Georgia is assisting P2 AD in developing a pollution prevention outreach program for small businesses. The Division also publishes a quarterly newsletter titled, *From the Source*, which contains short articles on specific aspects of successful pollution prevention programs.

#### *On-Site Technical Assistance*

- Technical assistance is provided through the program by both P2 AD office staff and through the Seniors' Assessment Technical Assistance Program (SATAP) system. On-site assessment procedures consist of a request from a company, completion of a pre-assessment questionnaire, and contact from a staff engineer to set up an appointment for the actual assessment. With large companies, the program emphasizes the development of a pollution prevention team to perform in-house assessments. Staff engineers provide training and support necessary to get the team "off the ground".

#### *SATAP*

- The Seniors' Assessment Technical Assistance Program was developed by the Pollution Prevention Assistance Division to provide Georgia industries with information on the latest techniques in pollution prevention. SATAP provides free on-site pollution prevention assessments to companies interested in voluntarily reducing their facilities generation of wastes. These assessments are conducted by retired engineers under contract to P2 AD. In addition to their years of "real world" experience in various industrial settings, SATAP engineers are trained in the latest pollution prevention measures and technologies. SATAP engineers are supported by the technical capabilities of the Georgia Tech Research Institute (GTRI).

After conducting a detailed, on-site assessment of the company's waste streams and waste generating processes, SATAP engineers, in consultation with environmental engineers at GTRI, provide participating companies with a report outlining the pollution prevention opportunities identified during the visit. The participating company has the option of implementing the pollution prevention opportunities identified in the SATAP report. SATAP personnel are available to assist companies in gathering any additional technical information that they might need to realize their pollution prevention goals. SATAP services are independent of any government enforcement activities and are completely non-regulatory in nature.

In addition to providing SATAP on-site assistance, P2AD maintains an information clearinghouse that can supply the latest technical information on pollution prevention issues. P2 AD's in-house library of pollution prevention information is augmented by the resources of GTRI, the Waste Reduction Resource Centre for the Southeast, and U.S. EPA's pollution prevention information clearinghouse. P2 AD has access to technical reports, scientific journals, case studies, trade publications and other data that can help industry address specific pollution prevention problems.

#### *Grants Program*

- The Pollution Assistance Division offers grants of up to \$40,000 to assist small-to-medium sized companies in their implementation of P2 projects. Money provided through this grant must be matched on a 1:1 basis in dollars or in-kind contributions.

A unique feature of Georgia's P2 program is the establishment of a technical assistance and applied research program for pollution prevention in agriculture. Areas of focus include animal production and crop production, with an emphasis on pesticide and herbicide management.

## GEORGIA FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• S.B. 519 Hazardous Waste Management Act (1990)
<b>KEY WORD USAGE</b>	• Waste Reduction: this includes practices other than de-watering, diluting or evaporating wastes, or any other end-of pipe method of waste management.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Large quantity hazardous waste generators. • Out-of-state large quantity hazardous waste generators who use Georgia's hazardous waste treatment, storage and disposal facilities.
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To provide for the preparation of hazardous waste reduction plans and biennial progress reports.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Not mentioned in this amendment, but specified in the original act: Source reduction / Recycling / Treatment / Disposal
<b>GUIDELINES FOR FACILITY PLANS</b>	• Policy statement of upper management and corporate support for the plan and commitment to implement plan goals / Plan scope and objectives, including the evaluation of technologies and procedures, personnel training programs to ensure unnecessary hazardous waste is not generated; specific goals for hazardous waste reduction, based on what is economically practical / Analysis of hazardous waste stream; identification of opportunities for hazardous waste reduction; evaluation of where and why waste was generated; potential reduction and recycling techniques / Accounting systems which identify waste management costs and factor in liability compliance and oversight costs / Employee awareness and training programs to involve employees in hazardous waste reduction planning and implementation.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Not specified.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Not specified.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Not specified.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• The Board may promulgate such rules as necessary to further define and implement this act.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• All plans must be completed and submitted to DNR • Plans shall be updated and submitted to DNR on a biennial basis.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• Progress shall be reported on a biennial basis. • First updated biennial reports were submitted to DNR in 1994.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Criminal penalties will be imposed for false statements made by a company in certifying that it is unable to meet the requirements because of the nature of its business operation or process, or by out-of-state generators in certifying that they are in compliance with the law.
<b>PLAN APPROVAL CRITERIA</b>	• Not specified.

# ILLINOIS



ILLINOIS

**PROGRAM NAME:** Illinois Environmental Protection Agency  
Office of Pollution Prevention

**ADDRESS:** 2200 Churchill Road PO Box 19276  
Springfield, IL. 62794-9276

**CONTACT:** Michael J. Hayes

**PHONE:** (217) 782-8700

**FAX:** (217) 782-9142

**PROGRAM TYPE:** State Government / Non-Regulatory Offices in Regulatory Agency  
/ P2 Assistance / Regulatory Assistance

**EXPERTISE:** Toxic Pollution Prevention Act of 1989 & Pollution Prevention  
Act of 1992

**P2 MEDIA:** Solid Waste (Hazardous & Other) / Wastewater / Air Emissions  
Multi-Media

**P2 RESOURCES:** 9 Full-time / 3 Student Intern Positions

**SERVICES:** Workshops / Recognition / Hotlines / Expedited Review of P2  
Proposals / Assist Companies in Interpreting Applicable  
Regulations & Identifying P2 Options

## PROGRAM OVERVIEW

This office has several important programs. Partners in Pollution Prevention, launched in 1991 to promote industry-agency cooperation, has evolved into a sounding board for new pollution prevention ideas, such as streamlining the permit process to encourage pollution prevention projects. Partner companies receive expedited permits, priority intern placements, on-site mutual assistance, and a liaison to Illinois Environmental Protection Agency programs. Partners in Pollution Prevention has grown in numbers and matured in its usefulness for incorporating pollution prevention into regulatory and production processes and has expanded to include:

- On-site Mutual Assistance and Two-way Hotline - Industry learns more about regulations, the agency learns more about industrial processes, and compliance and pollution prevention are better defined and easier to achieve.
- Graduate Internships - Well trained engineering and chemistry graduate students are provided to Illinois industries for short-term pollution prevention projects. The agency provides salary and pollution prevention training for the students.

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	•
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	•
INDUSTRY	•

- Industrial Process Workshops - Process specific training for agency personnel with industry expertise encourages better pollution prevention incorporation into permits, inspections and enforcement actions.
- Referrals - The Office of Pollution Prevention refers companies to other state agencies when technical or economic assistance is needed.

The office's pollution prevention conferences bring together industry, government, and environmental expertise to share successes and ideas. Local workshops and presentations are held on request to inform communities and companies of pollution prevention information available from the agency's small Business Assistance Program in a format tailored to the needs of small businesses that clarifies regulations and pollution prevention opportunities. The office compares pollution prevention data with waste minimization data to assess the progress of pollution prevention projects. When pollution prevention projects are not feasible, the Industrial Materials Exchange Service program encourages the reuse of recoverable industrial materials to turn disposal costs into savings and provide less expensive raw materials to companies. Listings in the bimonthly exchange service directory are free, and facility "walkthrough" service is available to assist in identifying recyclable materials.

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**PROGRAM NAME:** Illinois Hazardous Waste Research and Information Center (HWRIC)

**ADDRESS:** 1 East Hazelwood Drive  
Champaign, IL 61820

**CONTACT:** David Thomas

**PHONE:** (217) 333-8940

**FAX:** (217) 333-8944

**PROGRAM TYPE:** State Government / University Affiliated / Non-Regulatory Office / P2 Assistance / Regulatory Assistance / Applied Research

**LEGISLATION:** Hazardous Waste Technology Act (1984)

**EXPERTISE:** Food and Kindred Products / Printing and Publishing / Organic Chemicals / Inorganic Chemicals / Petroleum Refining / Primary Metal Industry / Electroplating / Machinery / Transportation Equipment / Agricultural Protection Crops / Foundries / Chemical Manufacturing / Solvent and Aqueous Metal Cleaning Processes / Vehicle Maintenance / Dry Cleaners / Training / Legislation / Database and Information Management

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Wastewater / Air Emissions / Multi Media

**P2 RESOURCES:** 10 full-time / 1 part-time  
\$ 950,000 (general funds / waste taxes / federal grant funding)

**SERVICES:** On-Site Consultations / On-Site Assessments / Assistance in Developing P2 Programs / Training, Seminars, Workshops / Grants / Research and Collaborative Projects / Sponsors Annual Governor's P2 Awards Program / Information Materials (library and clearinghouse) / Laboratory Facilities (engineering and analytical chemistry)

### PROGRAM OVERVIEW

The HWRIC is a division of the Illinois Department of Energy and Natural Resources. It combines research, education, and technical assistance in a multidisciplinary approach to manage and reduce industrial waste in Illinois. The centre collects and shares information through its library / clearinghouse and several computerized waste management tools.

HWRIC also provides on-site pollution prevention assistance, including program development. It sponsors pilot projects to develop and demonstrate pollution prevention technologies on-site and in the centre's pilot laboratory. Engineering field internships are also offered to various companies. Technical assistance is on an advisory basis and companies are under no obligation to follow the recommendations and advice staff provide. HWRIC engineers and scientists are available on request to provide "hands on" assistance with project development, initiation and management.

Waste generators are provided with a wide range of options for reducing and recycling industrial waste. A waste evaluation system has been developed by the centre consisting of two parts: a Waste Reduction Audit Checklist and a Waste Reduction Information Bibliography. The checklist is an individualized P2 assessment tool via a series of questions. It is designed to assess a facility's current waste reduction activities and then identify potential waste reduction techniques for each waste-generating process and job operation. The bibliography provides users with more than 300 literature abstracts and case studies on current waste reduction technologies.

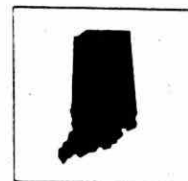
The HWRIC develops pollution prevention curricula for educational institutions, provides recognition through the annual Governor's Pollution Prevention Awards, and conducts pollution prevention workshops and seminars for trade associations, community groups, and industry.



# ILLINOIS FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• Toxic Pollution Prevention Act (1989)
<b>KEY WORD USAGE</b>	• Pollution Prevention: in-plant practices that reduce, avoid or eliminate pollution generation.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• "Industry" is used to connote persons required to prepare a plan.
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To reduce the disposal and release of toxic substances which may have adverse and serious health and environmental effects and to promote pollution prevention.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Not specified.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Not specified.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• The proposal need be effective in toxic pollution prevention, Achieve at least the level of prevention of other available processes, No expected adverse effects on public health or environment.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Not specified.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Not specified.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• Not specified
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Any person may submit a plan to the Illinois EPA for review.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• Not specified
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Not specified
<b>PLAN APPROVAL CRITERIA</b>	• The IEPA will review the plan content and decide on the criteria: effectiveness in pollution prevention, efficiency of process, as compared with other pollution processes if the process will have no adverse health or environmental effects.

# INDIANA



INDIANA

**PROGRAM NAME:** Indiana Department of Environmental Management (IDEM)  
Office of Pollution Prevention and Technical Assistance

**ADDRESS:** 100 North Senate Avenue PO Box 6015  
Indianapolis, IN 26206-6015

**CONTACT:** Tom Neltner

**PHONE:** (317) 232-8172

**FAX:** (317) 233-5627

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory  
Agency / P2 Assistance

**EXPERTISE:** Paper and Paper products / Printing and Publishing / Organic  
Chemicals / Inorganic Chemicals / Stone, Glass and Clay /  
Primary Metal Industries / Electroplating / Coating and Engraving  
/ All other Fabricated Metal / Electronic and Electronic  
Equipment / Medical Products / Toxics Wastestreams / Database  
and Information Management / Training

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Wastewater /  
Air emissions / Multi-Media

**P2 RESOURCES:** 7 Full-time  
\$ 1,725,000 (State funding)  
\$ 75,000 (Federal grant funding)

**SERVICES:** Computer Searches or other Electronic Assistance / Training,  
Seminars, Workshops / Referrals for Assistance

## PROGRAM OVERVIEW

This office, in addition to other programs it operates, carries out pollution prevention and technology transfer services. It produces a materials exchange catalog and has a governor's award program.

### Training of IDEM staff

• In June of 1992 IDEM began a comprehensive training program on pollution prevention for all agency staff. Over 650 agency staff have attended introductory training sessions. This program is the first comprehensive pollution prevention training program conducted for all staff in a state environmental agency. It has been built on two basic concepts. First, everyone in the agency, including all managerial, clerical, and

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	•
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	•
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	
COMMUNITIES	
INDUSTRY	•

technical staff, need to understand Indiana's definition, structure, and program objectives in order to ensure its integration into the programs and consistent presentation to business. Second any discussion about pollution prevention opportunities requires a sound technical understanding of the manufacturing process. IDEM staff must be trained before they can help others.

#### *Major Accomplishments*

- Providing IDEM's inspectors with a packet of pollution prevention brochures, case studies, and technical reports that they distribute to facility managers during inspections.
- Working with five companies to voluntarily agree to implement pollution prevention projects as an offset to a civil fine. Agreements are being negotiated with other companies.
- Performing pollution prevention impact analysis on all draft and proposed rule makings that allows the agency to identify pollution prevention barriers, opportunities, and incentives.
- Developing an enforcement referral policy to protect pollution prevention information submitted by business.

IDEM has developed an extensive outreach program through its pollution prevention staff and through several primary contractors. The agency has introduced the concept of pollution prevention to over 3,000 people through many speeches, on-site assistance visits and training courses.

To maximize the use of limited resources, IDEM has worked cooperatively on pollution prevention with various trade associations, including the Indiana Manufacturer's Associations and Indiana State Chamber of Commerce. A key partner and valuable resource is the newly formed Pollution Prevention and Safe Materials Institute housed at Purdue University.

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**PROGRAM NAME:** Indiana Pollution Prevention and Safe Materials Institute

**ADDRESS:** 1291 Cumberland Ave. Suite C1  
West Lafayette, IN 47906

**CONTACT:** Tom Noonan

**PHONE:** (317) 494-6450

**FAX:** (317) 494-6422

**PROGRAM TYPE:** State Government / University / Non-Regulatory Office / P2 Assistance

**EXPERTISE:** Wood Furniture / Rubber and Plastic Products / Primary Metal Industries / Electroplating / All other Fabricated Metal / Machinery / Database and Information Management / Training

**P2 MEDIA:** Hazardous Waste / Wastewater / Air Emissions

**P2 RESOURCES:** 4 Full-time / 1 Part-Time  
\$ 452,500 State Funding: general funds  
\$ 10,000 Foundation

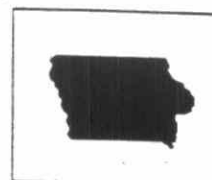


**SERVICES:**

On-site Consultations / On-site Assessments / Assist Companies in Developing P2 plan / Training, Seminars, Workshops / Research and Collaborative Projects

**PROGRAM OVERVIEW**

This program provides the technical assistance component for IDEM Office of Pollution Prevention. Purdue University's resources are used to provide direct free technical assistance to businesses, with the intent of raising a company's technology level. The program also provides implementation support.



# IOWA

**PROGRAM NAME:** Iowa Department of Natural Resources  
Waste Reduction Assistance Program

**ADDRESS:** Wallace State Office Bldg  
Des Moines, IA 50319-0034

**CONTACT:** Larry Gibson

**PHONE:** (515) 281-8941

**FAX:** (515) 281-8895

**PROGRAM TYPE:** State Government / Non-Regulatory Office / P2 Assistance

**EXPERTISE:** Textile Mill Products / Apparel and Other Finished Products /  
Lumber and Wood Products / Furniture / Paper and Paper  
Products / Printing and Publishing / Organic Chemicals /  
Inorganic Chemicals / Petroleum Refining / Rubber and Plastic  
Products / Primary Metal Industries / Electroplating / Coating and  
Engraving / All other Fabricated Metal / Machinery / Electrical  
and Electronic Equipment / Transportation Equipment /  
Photographic Products / Vehicle Maintenance / Laundries / Dry  
Cleaners / Construction & Demolition / Training

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Wastewater /  
Air Emissions / Multi-Media

**P2 RESOURCES:** 2 Full-time / 2 Part-time  
\$ 100,000 (State Funding: waste taxes)  
\$ 50,000 (Federal Grant funding)

## PROGRAM OVERVIEW

The Iowa Waste Reduction Assistance Program (WRAP) is a cooperative program providing non-regulatory technical assistance in pollution prevention to Iowa companies. It serves companies of more than 100 employees and Large Quantity Waste Generators of any size. WRAP promotes the concepts and the implementation of self sustaining, employee involved programs. WRAP's services are free, non-regulatory and confidential.

WRAP lends technical and informational assistance to business, industry and institutions to reduce all kinds of waste. WRAP also helps Iowa companies and institutions become more efficient and more competitive in world markets. The primary resources of WRAP are a team of 12 senior industry professionals and two full-time staff members who have over 500 combined years of industrial, scientific and pollution prevention experience.

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	•
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	•
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	•
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	
COMMUNITIES	
INDUSTRY	•

#### *On-Site Assistance*

- The centerpiece of the WRAP program is the on-site waste opportunity assessment. This process helps organizations identify new ideas and confirm existing ones for reducing waste and the costs associated with waste management. All wastes are considered to the extent that information and time are available. The WRAP on-site team first meets with a team of facility personnel to gain background and perspective, then performs a detailed review of the facilities waste streams, operations and associated information. A verbal de-briefing is held with the facility team before leaving to establish the initial ideas for reducing waste and costs and to verify that all are realistic. Regulatory compliance is not monitored, nor are notes kept regarding regulatory matters.

A written report is provided a few weeks later. In addition to providing a more detailed list of pollution prevention options for each client organization, the written report verifies prior progress and provides a preliminary cost/benefit estimates where possible. The client organization is allowed to review that report for accuracy and delete confidential information before the report is issued.

#### *Workshop*

- The second, and possibly most important, component of the WRAP program is the on-site workshop that follows the opportunity assessment. WRAP conducts a pollution prevention workshop that presents proven ideas for establishing a self-sustaining pollution prevention program. The half-day session stresses team concepts and facility planning for pollution prevention as well as the importance of incorporating maximum employee involvement.

#### *Technology Transfer*

- The third element of WRAP's assistance is a clearinghouse for providing information about proven and emerging pollution prevention technologies to WRAP clients. The technologies of waste reduction, toxics use reduction and other areas associated with pollution prevention, such as energy efficiency, are evolving rapidly. WRAP can assist clients in both identifying new ideas for pollution prevention and determining which ones may be of benefit in specific situations. WRAP utilizes a network of other states' programs, federal agencies and the contacts of the senior team members.

- All of WRAP's services are free and confidential. To date, WRAP has served over 100 facilities and identified pollution prevention opportunities that will save Iowa businesses and institutions many millions of dollars year after year.

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**PROGRAM NAME:** University of Northern Iowa  
Iowa Waste Reduction Center (IWRC)

**ADDRESS:** Cedar Falls, IA 50614-0185

**CONTACT:** John L. Konefes

**PHONE:** (319) 273-2079

**FAX:** (319) 273-2926

**PROGRAM TYPE:** State Government / University / Regional and National Program / Non-Regulatory Office / P2 Assistance / Regulatory Assistance

**EXPERTISE:** Food and Kindred Products / Lumber and Wood Products / Furniture / Printing / Rubber and Plastic Products / Electroplating / Coating and Engraving / Machinery / Transportation / Photographic Products / Medical Products / Vehicle Maintenance / Laundries / Dry Cleaners / Training / Legislation

**P2 MEDIA:** Multi-Media

**P2 RESOURCES:** 14 Full-time / 4 Part-time / 6 Student Interns  
\$ 475,000 State Funding: waste taxes  
\$ 109,000 State Funding: other  
\$ 815,000 Federal Grant Funding  
\$ 50,000 Other Funding

**SERVICES:** On-site Consultations / Computer Searches / Research and Collaborative Projects / Pollution Prevention Manuals / Waste Exchange

### **PROGRAM OVERVIEW**

The Iowa Waste Reduction Center is now in its seventh year of working with small businesses. It has grown from a fledgling one-person program in 1988 to a national technical assistance provider that uses applied research and education to achieve pollution prevention solutions for small business. The primary beneficiaries of the centre's work are Iowa's small businesses that receive direct assistance from the office or a free, confidential on-site review of their specific operations.

#### *By-product and Waste Search Service*

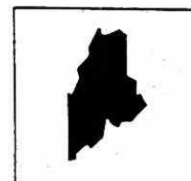
- The By-product and Waste Search Service (BAWSS) is a dynamic waste exchange that helps Iowa businesses find uses for their waste materials. Regional representatives at community colleges visit business facilities, learn about their waste materials, and search for users of those materials. Since 1992, the Service has aided the transfer of 48,123 tons of materials, saving Iowa businesses \$873,017 in disposal costs alone. It operates efficiently at the cost of \$9.00 ton of diverted waste, compared to municipal recycling programs that operate at a cost of \$50 to \$100 per ton. The BAWSS is a cooperative effort of the Iowa Department of Natural Resources, community colleges, councils of government, solid waste agencies, and the IWRC. IWRC's role is to provide data management and technical support.

#### *On-Site Review*

- The main method employed to work with small businesses is the on-site review. An IWRC environmental professional visits the facility to gather site-specific information. The review focuses on the individual small business operations and provides a straightforward guide to the business operator on waste reduction and regulatory issues. The visit is followed by a written report. In 1994 the centre conducted 164 site visits and follow-up reports. Over 2,000 businesses have been contacted and assisted through detailed work projects and additional brief assistance efforts.

#### *Education / Workshops / Research*

- The centre sponsored several hazardous waste reduction workshops targeted at small business owners and operators. The Centre also publishes two quarterly newsletters titled *The Closed Loop*, and *The Point Source* which is provided to 3,735 small businesses. The centre is very active in training officials from across North America and Europe on P2 program development and on special areas, such as on-site reviews.



## MAINE

### STATE P2 PROGRAM SUMMARY

**PROGRAM NAME:** Maine Department of Environmental Protection (DEP)

**ADDRESS:** State House Station #17  
Augusta, Maine, 04333

**CONTACT:** Ronald Dyer

**PHONE:** (207) 287-2811

**FAX:** (207) 287-7826

**PROGRAM TYPE:** State Government / Non-regulatory Agency / P2 Assistance /  
Regulatory Assistance

**EXPERTISE:** Textile Mill Products / Lumber and Wood Products / Paper  
Products / Printing and Publishing / Primary Metal  
Industries / Electroplating / Coating and Engraving / Electrical  
and Electronic Equipment / Transportation Equipment / Solvents  
Wastestreams / Paint Wastestreams / Vehicle Maintenance / Dry  
Cleaners / Training / Legislation

**P2 MEDIA:** Hazardous Waste / Wastewater / Air Emissions / Multi-media

**P2 RESOURCES:** 5 full-time / 2 part-time  
\$ 150,000 State Funding: Waste Fees  
\$ 100,000 Federal Grant Funding

**SERVICES:** On-Site Consultation / On-Site Assessments / Assist Customers in  
Developing P2 Plans / Computer Searches / Training, Seminars,  
Workshops / Grants and Loans / Research and Collaborative  
Projects / Clearinghouse

### PROGRAM OVERVIEW

DEP's Pollution Prevention Program mission is to promote pollution prevention within industry by encouraging source reduction as the preferred option of environmental protection.

### Major Activities

Implementation of the Reduction Law: Providing technical support and guidance to companies preparing plans and reports for Maine's Toxics and Hazardous Waste Reduction Law is a major responsibility of the P2 program. Seminars and other types of training are the primary activities for providing this type of assistance.

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	•
REDUCTION TARGETS	
STATE WIDE	
FACILITY	•
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	•
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	•
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	



On-Site Technical Assistance: Coordination and facilitation of Total Quality Environmental Management (TQEM) projects began in 1991 with one facility, and now number 12-15 at any one time. P2 teams, made up of DEP and industry technical staff, tackle pollution problems with the guidance and support of company management. Compliance assistance is offered. This has become a major department effort involving all media programs and senior management support.

Small Business Technical Assistance Program: The Small Business Technical Assistance Program is located within the P2 program office. It offers technical assistance with a P2 focus to Maine's small business in order to help them comply with new and existing state and federal air quality laws and regulations.

Maine Environmental Partnership Program: The Maine Environmental Partnership has been initiated with several of the trade associations in the State. Joint projects have included on-site multi-media surveys and identification of P2 opportunities, as well as research into industry related pollution issues.

Newsletter and Other Publications: The Office of Pollution Prevention (OPP) publishes a quarterly newsletter, which contains technical information as well as news of upcoming regulatory actions, P2 projects and other pertinent issues. Future activities will include the development of industry specific or process specific fact sheets and the publication of case studies.

Training: The OPP is involved in many training activities for both internal staff and outside interested parties. During the past year, the OPP has sponsored several cross training seminars for staff, and conducted over twenty workshops for industry on subjects such as P2 planning, providing P2 training to company employees, and conducting P2 financial analysis.

- Staff at the OPP have primarily, engineering backgrounds with a mix of legal and management experience. The OPP is within the same agency as the media regulatory agency and the regulatory staff are relied on regularly to advise the staff in both compliance assistance as well as P2 efforts. The Reduction Law allows for some enforcement discretion by staff when working on a technical assistance project.

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**PROGRAM NAME:** Maine Waste Management Agency (WASTECAP)

**ADDRESS:** 160 Capital Street, SHS # 154  
Augusta, Maine, 04333-0154

**CONTACT:** Gayle Briggs

**PHONE:** (207) 287-5300

**FAX:** (207) 287-5425

**PROGRAM TYPE:** State Government / Non-regulatory Office

**EXPERTISE:** Food and Kindred Production / Textile Mill Products / Lumber and Wood Products / Furniture / Paper and Paper products / Printing and Publishing / Leather and Leather Products / Stone, Glass, and Clay / Primary Metal Industries / Medical Products / Marinas / Database and Information Management / Training / Financial Assistance / Legislation

**P2 MEDIA:** Solid (non-hazardous) Waste

**P2 RESOURCES:** 1 full-time / \$ 60,000 State Funding / Federal Grant Funding

**SERVICES:** On-site Consultations / Training, Seminars, Workshops / Research and collaborative projects.

### PROGRAM OVERVIEW

WasteCap is a program designed to provide companies with the technical expertise necessary to recognize waste minimization opportunities. Through a free, on-site waste assessment WasteCap will assist business and industry in recognizing changes in production and material handling which can reduce the amount of solid waste generated. The focus of WasteCap is on source reduction, changes in the production and handling methods and possible product modifications which will result in changes in types and levels of wastes generated. WasteCap takes a "big picture" approach in that the teams make recommendations that do not simply shift waste from one medium to another, but that considers the totality of the waste stream both before and after changes are implemented.

The agency coordinates the program, site visits and team members. A liaison is maintained with other state agencies and programs to identify areas where there may be regulatory roadblocks to various types of source reduction. The benefit, then, is a multi-agency coordinated effort to implement waste reduction.

#### How WasteCap Works:

1. A business requests a free on-site assessment through the Maine Waste Management Agency.
2. The agency will then select an appropriate WasteCap team from their pool of potential business volunteers and schedule a free on-site waste assessment.
3. The WasteCap team members tour the participating business' facility.
4. Immediately following the tour, the WasteCap team meets with company representatives to discuss their observations and suggestions.
5. Following the visit, the Agency will send the company a report which will include such things as: recommendations for waste reduction efforts, an outline of the observations made, Suggestions on alternative waste handling practices; and other pertinent information on recycling.
6. The Agency will follow up with the company 6-12 months after the visit to determine the success of the program.

The potential benefit to the business community from this program include: reduced costs, benefit to the environment, improved image, and decreased liability.

## MAINE FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<i><b>SPECIFICITY</b></i>	
<b>TITLE AND DATE OF LEGISLATION</b>	• S.P 1011, 1990.
<b>KEY WORD USAGE</b>	• Pollution Prevention: reduction of Toxic material release, exposure and generation by toxic use reduction, release reduction and waste reduction.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Generators of > than 100Kg of hazardous waste per month for more than 3 months per year / Facility owners or operators required to report under SARA, Title III, Section 313 (toxic releasers) / Persons required to report the presence of extremely hazardous substances under SARA, Title III, Section 312 (toxic users).
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To reduce the volume of toxic substances used, toxic released and hazardous waste generated: 10% by 1993, 20% by 1995, 30% by 1997
<b>WASTE MANAGEMENT HIERARCHY</b>	• Toxic use reduction, toxic release reduction and hazardous waste reduction
<b>GUIDELINES FOR FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>• Statement of facility-wide management policy for toxic use, toxic release and hazardous waste reduction.</li> <li>• Identification and characterization of types and amounts of all toxics used, toxics released and hazardous waste generated.</li> <li>• Evaluation of any appropriate technologies, procedures, processes, equipment or production changes that may be utilized to reduce the amount of toxicity of toxic used, toxic released or hazardous waste generated.</li> <li>• Strategy and schedule for implementing reduction options for each production process.</li> <li>• Identification of available markets or recycling opportunities for hazardous waste.</li> <li>• Program for maintaining records on toxic use, toxic release and hazardous waste generation rates and management costs.</li> </ul>
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• DEP will track generator progress by manifest data
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	<ul style="list-style-type: none"> <li>• Toxic use and toxic release reports must state progress towards meeting toxic use release goals, respectively.</li> <li>• Hazardous waste generators are not required to complete a progress report, but DEP will track progress through hazardous waste manifest data.</li> </ul>
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Practicable steps necessary to reduce hazardous waste or toxic releases would have an unreasonable adverse impact on product quality or quantity / Legal or contractual obligations prohibit steps necessary to reduce hazardous waste generations or toxic releases.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	<ul style="list-style-type: none"> <li>• Hazardous Waste Reduction Exemptions: Commercial hazardous waste treatment or storage facilities / pilot plants or pilot production units / Hazardous waste transporters / Hazardous waste generated as a result of remedial or corrective actions or facility closures / Households / Agricultural operations.</li> <li>• Toxic Release Reduction Exemptions: Water supply treatment facilities / Municipal waste water treatment facilities / Retail and Wholesale motor fuel and heating distributors / Agricultural operations.</li> </ul>
<i><b>ENFORCEABILITY</b></i>	
<b>RULE MAKING AUTHORITY</b>	• A committee under the DEP will submit statutory recommendations to the joint standing committee having jurisdiction over energy and natural resource matters.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• DEP may require a toxics releaser/hazardous waste generator to submit a summary of the toxics release/hazardous waste reduction plan when: A facility fails to meet reduction goals / An exempted facility fails to meet alternative reduction goals established by DEP / Toxic release rates or hazardous waste generation in a new facility is significantly greater per production unit than in similar facilities of the same SIC code / Owners and operators shall keep a copy of the plan and any back-up data on the premises of that facility for at least 5 years and make both available to DEP.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	<ul style="list-style-type: none"> <li>• Toxics users and toxics releasers must report their progress towards meeting toxics use/release reduction goals as part of the reporting requirements to the State Emergency Response Commission.</li> <li>• Toxic users and toxic releasers must annually report progress toward meeting reduction goals</li> </ul>
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	<ul style="list-style-type: none"> <li>• Toxic users are not subject to penalties under this statute, except for the requirements to pay an annual fee.</li> <li>• Toxic releasers that fail to meet any statutory requirements, including, but not limited to, achievement of toxics release reduction goals and the preparation and submission of required plan summaries, are subject to enforcement action and fees up to \$ 25,000/day.</li> </ul>
<b>PLAN APPROVAL CRITERIA</b>	• In reviewing the adequacy of any plan summary, the commissioner shall base a determination on whether the plan summary is complete and prepared in accordance with requirements established by statute, regulations or guidelines.

**MASSACHUSETTS**

# MASSACHUSETTS

**PROGRAM NAME:** Massachusetts Executive Office of Environmental Affairs  
Office of Technical Assistance in Toxics Use Reduction

**ADDRESS:** 100 Cambridge Street, Suite 2109  
Boston, MA 02202

**CONTACT:** Barbara Kelley

**PHONE:** (617) 727-3260

**FAX:** (617) 727-3827

**PROGRAM TYPE:** State Government / P2 Assistance / Non-Regulatory Agency

**LEGISLATION:** H.6161 Toxic Use Reduction Act 1989

**EXPERTISE:** Textile Mill Products / Paper and Paper Products / Printing and Publishing / Organic Chemicals / Primary Metal Industries / Electroplating / Coating and Engraving / Transportation Equipment / Vehicle Maintenance / Dry Cleaners / Database and Information Management / Training / Legislation

**P2 MEDIA:** Multi-Media

**P2 RESOURCES:** \$1,729,313 / 29 Full-time  
(funded through toxic chemical usage fees)

**SERVICES:** On-Site Consultations / P2 Plan Development Assistance / Computer Searches or Other Electronic Assistance / Training, Seminars, Workshops

## PROGRAM OVERVIEW

The Office of Technical Assistance for Toxics Use Reduction (OTA), part of the Executive Office of Environmental Affairs, is a non-regulatory agency whose purpose is to assist Massachusetts industry in making viable changes in their production practices aimed at reducing or eliminating the use of toxic substances and the generation of toxic by-products. OTA was created by the 1989 Toxics Use Reduction Act (TURA) to work cooperatively with industry in order to meet the official statewide goal of a 50 percent reduction of toxic wastes by 1997, and to make continued progress thereafter. This goal is to be achieved through Toxics Use Reduction.

OTA was established by conversion of its predecessor - the Office of Safe Waste Management - which by 1989 had already gathered many years of experience in helping

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	•
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	•
PUBLIC ACCESS TO PLANS	
BY PETITION	•
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	•
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•



Businesses to reduce their use of toxic substances. OTA has also taken a leadership role in integrating the pollution prevention mind set into the work of federal, state and local regulatory agencies. Since OTA officially came into existence on July 1, 1990, it has worked with over 300 businesses throughout Massachusetts. The Office's message has reached an audience of at least 3000 through the more than 67 TUR workshops and conferences it has held across Massachusetts; thousands more have been reached at the more than 110 public events at which OTA staff members have given presentations.

*OTA offers Massachusetts businesses the following non-regulatory services at no charge:*

- On-site assessments designed to help businesses identify TUR opportunities and learn about alternative processes and technologies applicable to them.
- Response to telephone and written requests for information about TUR and relevant environmental regulations.
- Sponsorships of conferences, workshops, seminars, and trade fairs to disseminate information about TUR techniques and technologies.
- Promotion of alternative manufacturing processes that reduce toxic substance use, hazardous waste generation, toxic air emissions, or wastewater discharge.

OTA professional staff consist of six technical assistance teams, five of which are assigned to a region of the state, the other to special projects. Each team includes three members with extensive chemical and/or engineering experience in industry and an intern. OTA staff also include a health and safety expert, a financial analyst, project coordinators, computer information management specialist and an information coordinator.

All OTA technical assistance is multi-media. In 1992, OTA published, *A Practical Guide to Toxic Use Reduction*, a comprehensive guide designed to assist professionals in business and industry as they begin to introduce and implement toxic use reduction processes and programs.

OTA staff participate in monthly cross training with Department of Environmental Protection (DEP) inspectors to increase recognition of pollution prevention opportunities and be updated on permit regulations and procedures. OTA staff have also assisted state agencies as they work to meet "Clean State" deadlines which require all agencies to be in full compliance with state environmental statutes and to prepare pollution prevention programs. The Office has helped prepare an 80 plus page "how to" manual to guide state agencies as they establish their Clean State teams and programs. The Clean State program addresses cross media concerns in the broadest sense, looking at energy and water conservation, transportation issues, procurement policies, recycling and purchase of recycled products, and solid waste, as well as the toxics use reduction / pollution prevention areas which OTA targets.

OTA operates with a legislated guarantee of confidentiality in its client relationships. DEP and other environmental inspectors and enforcement personnel regularly offer referrals to OTA, sometimes as part of notifications of non-compliance.

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**PROGRAM NAME:** Northeast States Pollution Prevention Roundtable  
Northeast Waste Management Officials' Association (NEWMOA)

**ADDRESS:** 129 Portland St.  
Boston, MA 02114

**CONTACT:** Terri Goldberg



**PHONE:** (617) 367-8558

**FAX:** (617) 367-0449

**PROGRAM TYPE:** Regional Program

**EXPERTISE:** Paper and Paper Products / Printing and Publishing / Coating and Engraving / Vehicle Maintenance / Northeast States / Training / Financial Assistance / Legislation

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Multi-Media

**P2 RESOURCES:** 1 Full-time FTE / 1 Part-time

**SERVICES:** Computer Searches other Electronic Assistance / Training, Seminars, workshops

### **PROGRAM OVERVIEW**

This roundtable was initiated in 1989 by the Northeast Waste Management Officials' Association (NEWMOA) to assist state programs, industry, and the public in implementing effective source reduction programs:

- Establishing a clearinghouse of information on pollution prevention, including technical data, reports, case studies, and a list of pollution prevention experts.
- Conducting training sessions for state officials and industry representatives on source reduction policies, strategies, and technologies.
- Coordinating an inter-state roundtable of state pollution prevention programs.
- Researching source reduction strategies (such as for the major toxic metals in incinerator emissions and ash).

The clearinghouse provides pollution prevention information to the public, industry representatives, and state officials and identifies upcoming pollution prevention meetings and conferences. The roundtable also published a free quarterly newsletter, *Northeast States Pollution Prevention News*, which is available upon request.

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**PROGRAM NAME:** Toxic Use Reduction Institute  
University of Massachusetts at Lowell

**ADDRESS:** 1 University Ave  
Lowell, MA 01854

**CONTACT:** Janet Clark

**PHONE:** (508) 934-3346

**FAX:** (508) 934-3050

**PROGRAM TYPE:** State Government / University / Non-Regulatory Office / P2 Assistance

**LEGISLATION:** Toxic Use Reduction Act 1989

**EXPERTISE:** Textile Mill Products / Paper and Paper Products / Printing and Publishing / Organic Chemicals / Inorganic Chemicals / Rubber and Plastic Products / Leather and Leather Products / Primary Metal Industry / Electroplating / Coating and Engraving / All other Fabricated Metal / Machinery / Electrical and Electronic Equipment / Vehicle Maintenance / Dry Cleaners / Construction and Demolition / Database and information management / Training / Financial Assistance / Legislation / Surface Cleaning

**P2 MEDIA:** Multi-media

**P2 RESOURCES:** 23 research, technical and support staff (5 student interns)  
(Toxic chemical usage fees, U.S. EPA, UN Environment Program)

**SERVICES:** Computer Searches or other Electronic Assistance / Training, seminars, workshops / Grants and Loans / Research and Collaborative Projects / Customized Subscription Service

### PROGRAM OVERVIEW

The Institute was established by the Massachusetts Toxics Use Reduction Act of 1989, and works in conjunction with the State Department of Environmental Protection and the State Office of Technical Assistance. It is a multidisciplinary research, education and technical support center located at the University of Massachusetts at Lowell. The Institute works with an advisory group from industry that evaluates and recommends program goals. Focus groups from specific industrial sectors have further refined the goals of the Institute and contributed to the technical content of materials and training programs. This process has also helped identify directions for Institute research and the format of the program of funding industry projects. The Institute works closely with Massachusetts industrial sectors.

The Institute trains individuals who wish to become certified Toxics Use Reduction Planners through a 48-hour professional level course. As of fall 1993, three hundred and ten professionals have attended the course. The Institute offers conferences and workshops on pollution prevention, design for the environment, toxics use reduction, and other environmental topics. The Plan Enhancement Project, operated with other State agencies, delivers workshops, generates practical resource material, and provides a telephone hotline to support facility planning.

The Technology Transfer Center at the Institute maintains an extensive library of toxics use reduction and pollution prevention information. A priority is to make this information available to industry and other technical assistance programs through an open door policy, subscription information service, telephone-response line, presentation and other programs.

A Surface Cleaning Lab has recently opened at the Institute, created to evaluate effectiveness of different cleaning chemistries and equipment on a variety of substrates and soils. This facility will help industries to find and implement safer alternatives to hazardous solvents.

Research funded by the Institute is generating reports on alternative technologies, including supercritical fluids as substitutes for cleaning solvents, closed-loop aqueous cleaning and metal finishing, alternatives to solvent-based paints, inks, MEK, cyanide and others. Funding is available to companies through a matching grants program to support toxics use reduction activities.

The Technology Transfer Center has created a bibliographic database with over 3,000 entries, and is working with other States to build a combined resource. An aggressive acquisition program involves Institute research staff regularly scanning journals, newsletters and proceedings for relevant material. Clearinghouse activities are coordinated with the research service of the Universities libraries. The Institute has also participated in training of Massachusetts Department of Environmental Protection Staff in multimedia enforcement.

# MASSACHUSETTS FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	<ul style="list-style-type: none"> <li>Massachusetts Toxic Use Reduction Act, 1989.</li> </ul>
<b>KEY WORD USAGE</b>	<ul style="list-style-type: none"> <li>Toxic or Hazardous Waste Reduction is achievable through substitution of toxic substances, product reformulating and modification, improved house keeping and recycling of waste.</li> </ul>
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	<ul style="list-style-type: none"> <li>Initially facility owners or operators required to report under SARA, Title III, Section 313, then expanding by 1995 to include other SIC groups and facilities which use chemicals on the CERCLA list (large quantity toxic users).</li> </ul>
<b>CLARITY OF STATUTORY OBJECTIVES</b>	<ul style="list-style-type: none"> <li>To reduce toxic waste generated by 50% by 1997 using toxic use reduction as the means for meeting this goal.</li> </ul>
<b>WASTE MANAGEMENT HIERARCHY</b>	<ul style="list-style-type: none"> <li>Toxic use reduction</li> </ul>
<b>GUIDELINES FOR FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>Statement of facility-wide management policy for toxic use reduction.</li> <li>Plan scope and objectives, including planned reductions in facility-wide use and byproduct generation from the relevant base year for each toxic or hazardous substance during the next 2 years and 5 years.</li> <li>Economic and technical evaluation of technologies, procedures and training programs for achieving toxic use reduction.</li> <li>Analysis of current and projected toxic use, byproduct generation and emissions.</li> <li>Economic impacts of toxic use, including costs of raw material and byproduct storage, potential liability and regulatory compliance.</li> <li>Plan implementation schedule.</li> <li>2 year and 5 year production goals for each byproduct.</li> </ul>
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>If a majority of toxic users in a priority user segment fall significantly below standard achievements of byproduct generated per unit of product, DEP may require priority user segments to achieve a specified level of byproduct generated per unit of product, within a specified time frame.</li> </ul>
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	<ul style="list-style-type: none"> <li>Quantities of toxic or hazardous substances which are manufactured, processed, otherwise used, generated as byproduct, or shipped in product.</li> <li>Indication of whether the substance was used in the production unit amounts: less than or equal to 5000 pounds; greater than 5000 pounds but less than or equal to 10,000 pounds; and greater than 10,000 lbs.</li> <li>Reporting base year / Byproduct reduction index / Emissions reduction index / Matrix form of methods by which byproduct reduction index was achieved for each production operation.</li> </ul>
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	<ul style="list-style-type: none"> <li>Not specified.</li> </ul>
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	<ul style="list-style-type: none"> <li>Pilot plants and pilot production units.</li> <li>Start-up production units for a specified time period.</li> </ul>
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	<ul style="list-style-type: none"> <li>The DEP can adopt and repeal rules to ensure proper administration for the Act.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>Plans are kept at the facility and must be made available to DEP upon request.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	<ul style="list-style-type: none"> <li>Annual toxic or hazardous substance reports must be submitted to DEP.</li> <li>DEP must annually compile, analyze and summarize reports and plan summaries.</li> </ul>
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	<ul style="list-style-type: none"> <li>Any individuals or toxics user who violates the requirements of toxics use reduction planning or annual toxics and hazardous substance reporting shall be fined in an amount between \$2500 and \$25,000, or by imprisonment for not more than one year, or by both.</li> </ul>
<b>PLAN APPROVAL CRITERIA</b>	<ul style="list-style-type: none"> <li>In reviewing the adequacy of any plan summary, the commissioner shall base a determination on whether the plan summary is complete and prepared in accordance with requirements established by statute, regulations or guidelines.</li> </ul>



MICHIGAN

## MICHIGAN

**PROGRAM NAME:** Michigan Departments of Commerce and Natural Resources  
(DCNR)  
Environmental Services Division

**ADDRESS:** PO Box 30004  
Lansing, MI 48909-7504

**CONTACT:** Nan Merrill (Office of Waste Reduction Services)

**PHONE:** (517) 335-1178

**FAX:** (517) 335-4729

**PROGRAM TYPE:** State Government / Non-Regulatory Assistance / P2 Assistance

**EXPERTISE:** Electroplating / Painting and Coating / Paint Formulators /  
Automobile Industry / Hospitals / Database and Information  
Management

**P2 MEDIA:** Multi-Media

**P2 RESOURCES:** 15 Full-time  
\$ 1.6 million (State Funding: hazardous waste tipping fees)

**SERVICES:** Seminars and Workshops / On-site Assistance / Telephone  
Consultation / Information Development and Dissemination

### PROGRAM OVERVIEW

This office provides technical assistance to firms in targeted industrial sectors, including on-site waste assessments, telephone consultations, and workshops. It conducts waste reduction research and analysis and develops and distributes educational materials. The office holds an annual waste reduction roundtable and operates a waste reduction information clearinghouse and resource center. The office helps build coalitions to encourage pollution prevention, coordinates the Auto Pollution Prevention Project, and coordinates with EPA on a geographical initiative to focus pollution prevention efforts on business and industry in Michigan.

The office is involved in several demonstration projects. The Laboratory Surplus Supplies Exchange is a demonstration project with state government laboratories to establish an exchange of surplus laboratory supplies. The program also recruits and trains retired professionals to conduct waste stream assessments in companies in several areas of the state.

### STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	
COMMUNITIES	•
INDUSTRY	•



- DCNR staff visited 66 businesses and institutions to promote waste reduction activities in 1994. The purpose of the meetings or visits was to explain the services available and to perform general walk-throughs of the facilities, with staff providing on-site recommendations to company representatives and in some cases, to perform waste audits. Staff also met with companies to discuss waste reduction programs. Staff completed 119 telephone consultations to assist businesses with waste reduction activities in 1994.

#### *On-Site Waste Reduction Opportunity Assessments - Retired Engineer Technical Assistance Project (RETAP)*

- Retired engineers, scientists and other professionals with extensive plant experience are available through the Retired Engineer Technical Assistance Project (RETAP) to assist Michigan companies with waste reduction. Many of the analysts have thirty to forty years of experience with Michigan industries. Michigan's own retired professionals have been employed for this project. RETAP provides free, confidential, non-regulatory, voluntary waste reduction assessments for Michigan industries that request services. Each operation is viewed for potential waste reduction strategies and opportunities, including source reduction, reuse, recycling, and energy efficiency. Written, confidential reports identify waste reduction options and contain specific recommendations to save money, increase efficiency, reduce need for costly disposal facilities, reduce liability, and promote a positive public image. There is no obligation to implement the recommendation of RETAP analysts. All industries in Michigan are eligible to participate. The Waste Reduction and Technology Transfer (WRATT) Foundation has saved industry hundreds of thousands of dollars and has prevented release of substantial volumes of waste into air, land and water. Follow up with companies assisted by WRATT Foundation has shown a benefit cost ratio of 36 to 1, with average annual cost savings of \$ 90,000 per assessment. Twenty-three pre-assessments and nine full assessments were conducted in 1994, with an additional 40 companies requesting assistance through RETAP.

#### *Increasing Awareness*

- Outreach efforts have steadily increased through a marketing campaign that began when the Education and Outreach Program was initiated in June 1992. Through this program, the office sponsors and co-sponsors events, arranges presentations to a variety of audiences, distributes targeted mailings, and provides articles for external (trade associations) publications. In addition, the Education and Outreach staff have developed relationships with trade associations and other organizations to co-sponsor workshops and expand the division's access to other networks for broader outreach.
- In 1994 the office sponsored events attended by approximately 1,250 persons, focusing on waste reduction and energy efficiency topics. These events were all used to market the office's services and publications.
- The office has also developed several cooperative projects and activities with the auto industry aimed at focusing pollution prevention efforts on persistent toxic substances that adversely affect the Great Lakes basin.

#### *P2 TECH*

- Technical staff became members of P2 TECH, a communication network accessed through the Internet that was designed by the University of Wisconsin to serve waste reduction programs as a problem solving tool. Approximately 100 technical staff of pollution prevention programs throughout the country participate in this networking system, in which technical questions may be raised and responses received by other members. All participants receive the questions posed on the system, as well as the responses. This provides a daily source of information about waste reduction techniques and resources.





MINNESOTA

## MINNESOTA

**PROGRAM NAME:** Minnesota Office of Environmental Assistance

**ADDRESS:** 1350 Energy Lane, Suite 201  
St. Paul, MN 55108

**CONTACT:** Kevin McDonald

**PHONE:** (612) 649-5750

**FAX:** (612) 649-5749

**PROGRAM TYPE:** State Government / Non-Regulatory / P2 Assistance

**EXPERTISE:** Training / Financial and Technical Assistance / Legislation /  
Local Government P2 Programs / Workshops, Conferences

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Wastewater /  
Air Emissions / Multi-Media

**P2 RESOURCES:** 19 Full-time  
\$ 0.6 million State Funding: general taxes  
\$ 1.1 million State Funding: TRI taxes

**SERVICES:** Help Companies Develop P2 Facility Plans / On-site Consultations  
and Telephone Assistance / Training, Seminars, Workshops /  
Grants & Loans / Research and Collaborative Projects / Annual  
Grant to Minnesota Technical Assistance Program (Mn TAP)

**P2 PROGRAM OVERVIEW**

The overall mission of this office is to conserve resources and prevent pollution by developing projects and programs that reduce waste, recycle useable materials, recover resources from wastes, and treat waste to reduce the risk of pollution. The office provides matching grants to companies for projects that assess the feasibility of pollution prevention technologies. It also gives the Governor's Awards for Excellence in Pollution Prevention.

In terms of business assistance, the office assists Minnesota companies in developing their mandatory pollution prevention plans by providing a *Guide to Pollution Prevention Planning* and works in partnership with industry and professional associations to advance pollution prevention efforts in the state. It also finances the Minnesota Technical Assistance Program, which provides non-regulatory assistance to Minnesota industry. The community assistance program provides information, education, referrals, meeting facilitation, and matching grants. The annual pollution prevention conference's attendance exceeds 600 people, primarily from the private sector.

**STATE P2 PROGRAM SUMMARY**

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	•
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•

**PROGRAM NAME:** Minnesota Technical Assistance Program (MnTap)

**ADDRESS:** 1315 5th Street SE, Suite 207  
Minneapolis, MN 55414

**CONTACT:** Cindy McComas

**PHONE:** (612) 627-4555

**FAX:** (612) 627-4769

**PROGRAM TYPE:** University-based (University of Minnesota) / Non-profit / Non-Regulatory Office / P2 Assistance / Waste Management Assistance

**LEGISLATION:** 1990 Minnesota Toxic Pollution Prevention Act  
Minnesota Waste Management Act

**EXPERTISE:** Cleaning / Food and Kindred Products / Furniture / Printing and Plastic Products / Primary Metal Industries / Painting / All other Fabricated Metal / Machining / Electrical and Electronic Equipment / Transportation Equipment / Photographic Equipment / Medical Products / Vehicle Maintenance / Dry Cleaners / Construction & Demolition / Database and Information Management

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Wastewater / Air Emissions / Multi-Media

**P2 RESOURCES:** 13 Full-time Library Technical Assistants  
3 Full-time Communications Staff  
2 Full-time Support Staff

**SERVICES:** Telephone Assistance / Site Visits / Intern Programs / Seminars, Conferences / Referrals / Printed Resources

### **PROGRAM OVERVIEW**

This program helps Minnesota businesses protect the environment by providing practical alternatives for properly managing industrial waste and preventing pollution of land, air, and water. It offers telephone and site visit assistance, a student intern program, an information clearinghouse, computerized library, workshops and seminars, education and training, program development, and materials exchange listings.

- MnTap maintains a 1,000 document library of reference materials, journals, and videotapes that are available for review by Minnesota business people.
- Staff make presentations on pollution prevention an average of 20 times each year to organizations such as: schools; state government employees; professional organizations; environmental groups; federal facilities; and private industry via trade associations, individual companies, and conferences.
- The program offers free technical site visits to businesses and institutions to promote waste reduction activities. The purpose of the on-site visits is to provide suggestions and guidance to industry for developing required waste reduction plans. The visits provide businesses with the technical information resources and expertise they may require to develop accurate and efficient waste reduction plans. The focus of this program is to provide industry with a source of technical information and expertise.

## MINNESOTA FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• Toxic Pollution Prevention Act, 1990
<b>KEY WORD USAGE</b>	• Pollution Prevention: elimination of pollution at its source and elimination of releases through reduction, modification, substitution and better management.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Facility owners or operators required to report under SARA, Title III, Section 313.
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To protect public health, welfare and the environment; to encourage toxic pollution prevention.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Source reduction and processes that minimize cross-media pollutant transfers.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Policy statement of upper management support for toxic reduction / Description of current processes generating or releasing toxic, describing types, sources and quantities of toxic currently being generated or released / Description of current and past toxic reduction practices and evaluation of their effectiveness / Assessment of technically and economically practicable options available to eliminate or reduce the generation or release of toxics, which may include cost-benefit analysis / Plan objectives and schedule of objectives / Explanation of the rationale for each objective / List of options considered to be economically or technically impracticable / Certification by facility manager and a company officer attesting the plan's accuracy.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Wherever technically and economically practicable, objectives for eliminating or reducing the generation or release of each toxic pollutant must be expressed in numeric terms. Otherwise objectives must include a clearly stated list of actions designed to lead to the establishment of numeric goals as soon as practicable.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Summary of each objective established in the plan, including schedule for meeting objectives / Summary of progress made during past year, if any, toward meeting each plan objective, including quantity of each toxic pollutant eliminated or reduced / Statements of methods through which elimination or reduction has been achieved / Explanation of reasons why results were not achieved (if applicable), including identification of any technical, economic or other impediments / Certification by facility manager and a company officer attesting to report's accuracy.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Toxic pollutants resulting solely from research and development activities need to be included in the plan.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• The Pollution Control Agency will make recommendations to the legislature in its annual report.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Plans must be kept at the facility / PCA shall be given access to a facility plan if the progress report does not meet statutory requirements relating to progress report content.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• PCA shall review all progress reports to determine if they meet statutory requirements. • Annual progress reports must be submitted to PCA beginning in October 1992.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• If a modified progress report does not meet statutory requirements, PCA shall be given access to the facility plan and a public meeting will be held in the county where the facility is located.
<b>PLAN APPROVAL CRITERIA</b>	• After reviewing the plan and progress with any modifications submitted, the commissioner shall state in writing whether the progress report meets statutory requirements.

# MISSISSIPPI



MISSISSIPPI

**PROGRAM NAME:** Mississippi Department of Environmental Quality  
Waste Reduction / Waste Minimization Program

**ADDRESS:** PO Box 10385  
Jackson, MS 39289-0385

**CONTACT:** Thomas E. Whitten

**PHONE:** (601) 961-5171

**FAX:** (601) 354-6612

**PROGRAM TYPE:** State Government

## PROGRAM OVERVIEW

This state program includes pollution prevention research, on-site waste assessments, a waste exchange database, an information clearinghouse, and a monthly newsletter. It also provides pollution prevention conferences and workshops for industries, businesses, municipalities and the general public. The Waste Reduction Office is responsible for the administration and monitoring of state legislation requiring certain hazardous waste producers to develop P2 plans. The Department of Environmental Quality works in cooperation with the University of Mississippi to provide the required technical assistance to industry to meet state legislated requirements.

*MISSTAP- Mississippi Technical Assistance Program For Pollution Prevention*

- MISSTAP is a non-regulatory, client confidential, technical assistance program designed to assist Mississippi industries, businesses, and communities to find pollution prevention solutions to their hazardous and non-hazardous waste. MISSTAP was initiated by the legislative Environmental Protection Council and Mississippi State University to meet Mississippi 1990 Pollution Prevention Legislation.

*Technical Assistance activities consist of the following:*

- Referral calls to engineers trained in waste management, pollution prevention technology; meeting with communities, schools, businesses and industries based on funding available which includes: pollution prevention education and training, assistance with pollution prevention plans, planning and preliminary assistance for waste assessments.

- Waste Assessment to selected communities based on funding available which includes: review of community's data on waste management, on-site assistance in determining types of wastes and amounts, assistance in determining costs and feasibility of a recycling program, written report, suggestions for waste reduction.

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	•
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	•
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	•
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•



- Demonstration Projects through funded research which provide: on-site assistance, research and development and written reports.
- Pre-Assessment meeting with business and industries based on funding available include: pollution prevention education and training, assistance with the formation of pollution prevention teams, planning and preliminary assistance for waste assessments.
- Waste assessments to selected industries based on funding available include: review of company data, on-site assistance in determining types of wastes, amounts, and if they are hazardous, evaluation of data, confidential written report, suggestion for waste reduction.

*Technology Transfer activities include:*

- Library holding for books, periodicals, articles, and video tapes available for use by staff and general public alike. Computer literature searches for information required by industries, businesses and communities. On-line electronic bulletin board service to EPA's Pollution Prevention Information Clearinghouse. Hot-line to the Southeast Regional Waste Reduction Resource Center in Raleigh, North Carolina.
- Computerized waste exchange. Conferences on issues and technology important to Mississippi businesses, industries and communities relative to pollution prevention, waste reduction, and proper waste management.
- Newsletters keeping readers up-to-date on pollution prevention strategies and techniques, new regulations regarding environmental issues, new equipment, current issues, and emerging and innovative technologies.



# MISSISSIPPI FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	<ul style="list-style-type: none"> <li>Mississippi Comprehensive Multi-Media Waste Minimization Act, 1990</li> </ul>
<b>KEY WORD USAGE</b>	<ul style="list-style-type: none"> <li>Waste Minimization: achievable by reducing or eliminating waste at the source; if not possible, recycle; if not possible treat; if not possible, disposal.</li> </ul>
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	<ul style="list-style-type: none"> <li>Large quantity hazardous waste generators / Small quantity hazardous waste generators.</li> <li>Facility owners or operators required to report under SARA, Title III, Section 313.</li> </ul>
<b>CLARITY OF STATUTORY OBJECTIVES</b>	<ul style="list-style-type: none"> <li>To reduce or minimize the generation and toxicity of waste by a minimum of 25% by January 1, 1996</li> </ul>
<b>WASTE MANAGEMENT HIERARCHY</b>	<ul style="list-style-type: none"> <li>Source reduction / Recycling / Treatment / Disposal</li> </ul>
<b>GUIDELINES FOR FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>Policy statement of management support for waste minimization and plan implementation / Plan scope and objectives, including evaluation of technologies, procedures and personnel training programs to ensure waste minimization / Analysis of waste streams and identification of opportunities to eliminate waste generation, including review of waste generating processes, evaluation of data on types, amounts and hazardous constituents of waste generated and potential waste minimization costs / Employee awareness and training programs to involve employees in waste minimization planning and implementation.</li> </ul>
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>Performance goals for waste minimization must be set in numeric terms to the extent practical.</li> </ul>
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	<ul style="list-style-type: none"> <li>Annual plan updates are required in lieu of progress reports, and must include: Analysis and quantification of progress made, if any, in waste minimization, relative to each performance goal / Amendments, if any, to the plan and an explanation of the need for amendments.</li> </ul>
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	<ul style="list-style-type: none"> <li>Not specified.</li> </ul>
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	<ul style="list-style-type: none"> <li>Commission of Environmental Quality is authorized to make exemptions to and grant exemptions and variances from rules and regulation implementing the statute.</li> </ul>
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	<ul style="list-style-type: none"> <li>The Commission on Environmental Quality is authorized to adopt or repeal rules.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>A generator or facility operator shall permit any designee of DEQ to review the waste minimization plan</li> </ul>
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	<ul style="list-style-type: none"> <li>From the waste minimization plan and each annual update, the generator or facility operator shall submit a certified report of wastes generated and minimized.</li> <li>Annual plan updates must be prepared and must include quantification of progress in achieving performance goals.</li> </ul>
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	<ul style="list-style-type: none"> <li>No penalties.</li> </ul>
<b>PLAN APPROVAL CRITERIA</b>	<ul style="list-style-type: none"> <li>Not specified.</li> </ul>

# NEW JERSEY



**PROGRAM NAME:** New Jersey Department of Environmental Protection  
Office of Pollution Prevention

**ADDRESS:** CN423; 403 East State Street  
Trenton, NJ 08625

**CONTACT:** Jeanne Herb

**PHONE:** (609) 777-0518

**FAX:** (609) 777-0518

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory  
Agency / P2 Assistance / Regulatory Assistance

**LEGISLATION:** New Jersey Pollution Prevention Act 1991

**EXPERTISE:** Organic Chemicals / Rubber and Plastic Products / Primary Metal  
Industries / Electroplating / All other Fabricated Metal

**P2 MEDIA:** Multi-media

**P2 RESOURCES:** 15 Full-time  
\$ 2,100,000 (State funding)

**SERVICES:** On-Site Consultations / On-Site Assessments / P2 Plan Assistance  
Development / Training, Seminars, Workshops

## PROGRAM OVERVIEW

This office develops legislation, rules and regulations, gives out a governor's award, and prepares industry profiles from pollution prevention trend analysis.

*The Office of Pollution Prevention has three objectives:*

- To implement the 1991 New Jersey Pollution Prevention Act.
- To undertake the pilot Facility-Wide Permit Program.
- To transform the existing regulatory framework to one based on pollution prevention.

*Accomplishments to Date:*

- Development of several user-friendly guidance documents that walk facilities through their reporting requirements, and gives them extensive guidance on pollution prevention planning.

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	•
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	•
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	•
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	•
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	•
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•

- The department has conducted several major training courses and is planning to conduct further training activities targeting specific industries. The Department is working cooperatively with industry-specific trade associations to develop workshops and presentations that are tailored to those industries' needs.
- The Department has developed user-friendly software that industries can use to conduct Total Cost Assessments (TCA). A computerized data base system has also been developed that manages incoming plan summary and progress report data. Several industry P2 profile reports have been developed by the Department targeting industry groups covered by the New Jersey Legislation.
- The Department is working with volunteer companies and is in the process of developing a Facility-Wide Permit Program. The FWP program is considered one of the most innovative environmental regulatory experiments in the U.S. The Legislature limited the Department's authority to only issue 15 Facility-Wide Permits by a certain date, after which the Department is required to report back to the Legislature on the concept of Facility-Wide Permitting and its feasibility for expansion.
- The Office of Pollution Prevention has developed policy papers that examine the statutory, regulatory, policy and cultural changes that need to be reconsidered in order to facilitate pollution prevention and more flexible and coordinated regulation. The Office has worked closely with the Air Regulations Program and the Wastewater Regulations Program to build pollution prevention considerations into the air operating permit regulations. In addition, the pollution prevention program is working with the hazardous waste regulation program to allow the hazardous waste program to acknowledge pollution prevention via in-process recycling.

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**PROGRAM NAME:** New Jersey Technical Assistance Program for Industrial Pollution Prevention (NJTAP)

**ADDRESS:** CEES Building University Heights  
Newark, NJ 07102-1982

**CONTACT:** Kevin Gashlin

**PHONE:** (201) 596-5864

**FAX:** (201) 596-6367

**PROGRAM TYPE:** State Government / University / Non-Profit / Non-Regulatory Office / P2 Assistance / Regulatory Assistance

**EXPERTISE:** Textile Mill Products / Paper and Paper Products / Printing and Publishing / Organic Chemicals / Primary Metal Industries / Electroplating / Coating and Engraving / Transportation Equipment / Vehicle Maintenance / Dry Cleaners / Database and Information Management / Training / Legislation

**P2 MEDIA:** Hazardous Waste / Wastewater

**P2 RESOURCES:** 4 Full-time / 8 Part-time  
\$200,000 State funding / \$100,000 Federal grant funding

**SERVICES:** On-site Consultations / P2 Plan Development Assistance / Computer Searches, Seminars, Workshops / Financial Assistance

## PROGRAM OVERVIEW

The New Jersey Technical Assistance Program for Industrial Pollution Prevention (NJTAP) is dedicated to providing information, training and guidance of a technical nature to owners and operators of small industrial businesses in New Jersey that use, process or release hazardous materials. These activities facilitate the adoption of pollution prevention (P2) principles into the company's environmental protection strategy and overall way of doing business.

NJTAP staff carry out their mission through literature research and distribution; production of training courses and conferences, and by assisting company personnel in the assessment of industrial processes. All interaction is designed to encourage the implementation of P2 standards of practice where appropriate.

The New Jersey Technical Assistance Program is an information resource on ways to reduce or eliminate waste and the ever-rising cost associated with waste disposal, regulatory compliance, liability and environmental impact. Now in its fourth year, NJTAP services are provided at no charge to businesses and industries in New Jersey. All inquiries and responses are confidential. NJTAP addresses single multifaceted - air, water and land - industrial pollution sources. It is housed in the Otto H. York Centre for Environmental Engineering and Science at New Jersey Institute of Technology in Newark. NJTAP can recommend practical, economically favorable, proven source reduction and recycling options.

*NJTAP has assisted over 200 businesses. The program offers:*

- On-site assistance by staff to help identify pollution prevention options, and aid in the development of a sustainable pollution prevention program. Plant walk-through inspections are employed where NJTAP staff visit plants and provide recommendations and assistance in the development of P2 workplans. In addition to NJTAP employees, retired engineers volunteer their time to provide technical assistance to New Jersey firms in the development of P2 workplans.
- Information Research Centre with over 500 reference materials for developing cost-cutting strategies and finding existing, successful waste reduction technologies.
- Referrals from a list of qualified, experienced professionals who are accomplished in process design, modernization, troubleshooting and engineering.
- Development of pollution prevention demonstration projects with trade associations, equipment suppliers, and utility authorities.
- Student Intern Program through NJIT's Division of Cooperative Education. Student employment provides at low cost, a student employee to perform an in-depth assessment of pollution prevention issues.
- The Pollution Prevention Implementation Incentive Grant Program makes \$450,000 available for matching grants to small manufacturers seeking to adopt various pollution prevention measures.

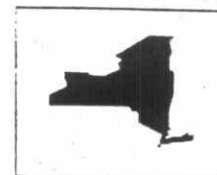


## NEW JERSEY FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	<ul style="list-style-type: none"> <li>• Pollution Prevention Act, 1991</li> </ul>
<b>KEY WORD USAGE</b>	<ul style="list-style-type: none"> <li>• Pollution Prevention: Changes resulting in lowered hazardous substances per unit production, generation, and disposal without shifting risk.</li> <li>• It does not include treatment, out-of-process recycling, or incineration.</li> </ul>
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	<ul style="list-style-type: none"> <li>• An owner / operator of a primary industrial facility / A facility required to submit a Toxic Chemical Release Form / An owner or operator with SIC codes within major groups 26, 28,30,34.</li> </ul>
<b>CLARITY OF STATUTORY OBJECTIVES</b>	<ul style="list-style-type: none"> <li>• A goal of transforming from a control to a prevention system.</li> <li>• To achieve significant reductions within 5 years after plan submission.</li> <li>• 50% reductions after five years (after plans), using 1987 data concerning hazardous substances at industrial facilities.</li> </ul>
<b>WASTE MANAGEMENT HIERARCHY</b>	<ul style="list-style-type: none"> <li>• Pollution Prevention by using efficient, rational use of hazardous substances; use of less hazardous substances; or processes less prone to pollute.</li> </ul>
<b>GUIDELINES FOR FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>• Inventory and Analysis by: Certification by highest ranking corporate official with facility responsibility / Name, address, telephone number of owner / operator / Production process identification using hazardous substances / Amount of each hazardous substance, in pure or mixed form stored on a annual average / Amount of hazardous waste generated by each process / Address of each off-site treatment, disposal and storage facility and methods of treatment / Facility-wide amounts of waste generated, disposed, recycled in-process, treated, recycled outside-process on and off-site / Amount discharged after recycling / Calculation showing actual increases or decreased and the methods used.</li> </ul>
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>• 5 year numeric goals for each hazardous substance reduction process.</li> <li>• Description and identification of targeted source and reduction options.</li> <li>• Quantitative description or impact that individual pollution prevention ideas on post treatment releases.</li> </ul>
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	<ul style="list-style-type: none"> <li>• Identification of each production process and calculations of the increase or decreases per unit production; multi-media release; or medium release; or medium after, compared with the previous year.</li> <li>• Method indication / Numerical progress toward 5 year goal.</li> <li>• Explanation of why there is a variance (if any) from the performance goals anticipated.</li> <li>• New processes planned in the forthcoming year.</li> </ul>
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	<ul style="list-style-type: none"> <li>• Pilot facilities.</li> <li>• Research and development laboratories</li> </ul>
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	<ul style="list-style-type: none"> <li>• Not specified.</li> </ul>
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	<ul style="list-style-type: none"> <li>• The Department of Environmental Protection.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>• Maintain a copy of plan on site for inspection.</li> <li>• Department of Environmental Protection has authority to require a plan and report and can approve, repeal and/or modify the plan and report.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	<ul style="list-style-type: none"> <li>• Procedures same as above.</li> <li>• Annual updates.</li> </ul>
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	<ul style="list-style-type: none"> <li>• Civil Action including: Levying costs for an investigation, inspection, and monitoring, or levy a fine not to exceed \$15,000 per day per violation, plus costs to the agency.</li> </ul>
<b>PLAN APPROVAL CRITERIA</b>	<ul style="list-style-type: none"> <li>• Plans can be approved, modified or repealed according to the criteria in section 6 of this act.</li> </ul>



# NEW YORK



NEW YORK

## STATE P2 PROGRAM SUMMARY

**PROGRAM NAME:** New York State Department of Environmental Conservation  
Pollution Prevention Unit

**ADDRESS:** 50 Wolf Rd.  
Albany, NY 12233-8010

**CONTACT:** William F. Eberle

**PHONE:** (518) 457-2480

**FAX:** (513) 457-2570

**PROGRAM TYPE:** State Government / Regulatory Office / P2 Assistance / Regulatory Assistance

**EXPERTISE:** Database and Information Management / Training / Legislation

**P2 MEDIA:** Hazardous Waste / Multi-Media

**P2 RESOURCES:** 70 full-time  
\$ 4,000,000 (\$ 1,500,000 State funding / \$ 2,500,000 Federal grant funding)

**SERVICES:** Computer Searches or other Electronic Assistance / Training, Seminars, Workshops

### PROGRAM OVERVIEW

The bureau offers waste reduction manuals, pollution prevention fact sheets, industry-specific workshops for small and medium-quantity generators, an annual waste reduction conference, public outreach programs, and technical assistance. It serves as an information clearinghouse and participates in the Northeast Industrial Waste Exchange.

#### *Major tasks of the Pollution Prevention Unit:*

- Provide technical support for and coordinate major multi-media pollution prevention (M2P2) case enforcement.
- Coordinate information management to track and monitor progress of M2P2 initiatives.
- Develop and implement internal and external M2P2 technical assistance information.
- Planning and coordination for M2P2 program.
- Coordinate and review inter-program scientific/toxicity assessments.

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	•
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	

Inter-program Toxicity and Scientific Assessments. A number of activities that involve toxicity and risk evaluations are carried out by PPU staff. These include coordinating risk assessment efforts and needs among the Department's program and the NYS Department of Health (DOH) and other issues relating to specific toxicity or risk problems that cross several environmental media. One of the major activities in this area has been coordinating the Department's efforts on lead issues. The PPU is developing a method to incorporate toxicity as a criterion in prioritizing M2P2 activities. A risk-based screening methodology is currently being evaluated for use in the selection of facilities to be addressed under the M2P2 program. A comparative risk project is also being considered as a means of providing a framework for risk-based decision making to be used in both the M2P2 initiative as well as the strategic planning process carried out by the environmental quality programs.

*The following P2 Activities have been successfully accomplished through the efforts of the Pollution Prevention Unit:*

- Integrated inspections are conducted at facilities. The inspections assessed compliance at the facilities and in some cases resulted in identification and implementation of pollution prevention programs. The Department intends to increase emphasis on pollution prevention during inspections.
- The New York State Governor's Pollution Prevention award program, was initiated to recognize facilities that implemented pollution prevention programs deserving special commendation.
- The Pollution Prevention Unit planned and conducted Annual Pollution Prevention Conferences which were co-sponsored by the New York Business Council, Inc. These annual events which typically are attended by up to 300 individuals provide a unique forum for representatives of industry, government, legislature and environment groups to meet and exchange ideas on pollution prevention.
- The Pollution Prevention Unit holds workshops for local governments to provide them with information to assist small businesses that plan to locate or expand within their jurisdictions. The workshops are designed to help local governments and small businesses understand the Department's regulations and opportunities for pollution prevention.
- Over 10,000 representatives of businesses, environmental groups and other organizations across the State have received copies of the Pollution Prevention Bulletin. The Bulletin highlights P2 accomplishments by industry, P2 technologies and other relevant information.
- The Pollution Prevention unit has developed several success story models, outlining the benefits associated with the development of P2 plans. Various fact sheets have also been developed that explain P2 concepts to the regulated community and public.
- Department inspectors have been aquatinted with information that will enable them to assist industries in identifying pollution prevention measures that will reduce toxic chemical releases and result in savings to the facilities.
- A Pollution Prevention Clearinghouse has been developed to provide information to facilities on pollution prevention measures that may be appropriate for the facility. This clearinghouse consists of 7000 pieces of technical information and is coordinated with other organizations in the Great Lakes and New England areas.
- An Environmental Self Audit Manual for Small Businesses was developed by the Pollution Prevention Unit to assist small businesses in complying with environmental regulations. Over 12,000 manuals have been distributed to all types of small businesses.

- The Pollution Prevention Unit established the Multi-Media Pollution Prevention Advisory Group which comprises of 30 members representing large and small businesses, legislative commissions, environmental groups, local government, State agencies and other groups. The Group's mission is to assist and advise the Department in the implementation of the pollution prevention initiative.
- The Unit has begun working on a pilot Integrated Permit Program with the intent of developing a system where all permits are consolidated into one document.
- The Pollution Prevention Bulletin is published in the spring and fall with direct mailings to over 7400 industrial, environmental, citizen and other groups in New York. The bulletin is written and edited by PPU staff with assistance from The Department's Office of Public Affairs.

## NEW YORK FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• S.B. 5276-B 1990
<b>KEY WORD USAGE</b>	• Pollution Prevention: Changes resulting in lowered hazardous substance per unit production, generation, and disposal without shifting risk. It does not include treatment, out-of process recycling, or incineration.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Generators of equal to or greater than 25 tons of hazardous waste per year. • Generators required to hold a hazardous waste treatment, storage or disposal facility permit.
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To reduce hazardous waste generation and release by 50% over the next 10 years.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Source reduction / Recycling / Treatment / Disposal
<b>GUIDELINES FOR FACILITY PLANS</b>	• Identification of amounts and types of acute hazardous waste / Identification of amounts and types of hazardous wastes generated during previous year / Description of the amount of waste generated per unit of production output, raw material used or other appropriate index / Estimate of waste management costs, including storage, treatment, transportation disposal and regulatory fees / Evaluation of feasibility of implementing waste reduction processes for each waste / Program to implement feasible waste reduction alternatives / Evaluation of anticipated reduction in amount of hazardous waste produced as a result of implementing each waste reduction option / Evaluation of cross-media transfers of waste reduction options.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Evaluation of the anticipated reduction, in tons or other appropriate measurement, in the amount of hazardous wastes produced as a result of the implementation of each of the technically feasible and economically practicable waste reduction options.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Progress in achieving time schedule for implementing waste reduction alternatives. • Reasons for not implementing any waste reduction technology, process or operational change identified in the plan. • Explanation of why any waste reduction method chosen and implemented did not achieve anticipated waste reduction.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not Specified
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Hazardous waste generated by: Corrective action for a release from a hazardous waste treatment, storage or disposal facility / Remediation of inactive disposal sites / Cleanup of environmental releases / Demolition and construction debris.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• The Commission may adopt and amend regulations only after state Environmental Board Approval.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• DEC must review each plan according to a schedule established by statute.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• Annual status reports, describing a generator's progress in achieving its waste reduction implementation schedule, are required as part of hazardous waste generator reports. • Annual status reports must be submitted to DEC
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Any generator whose plan has been rejected by DEC is not allowed to make the hazardous waste manifest certification, and, per a condition of any permit issued for on-site treatment, storage or disposal of hazardous waste, is not allowed to make the annual report certification.
<b>PLAN APPROVAL CRITERIA</b>	• Review of hazardous waste reduction plans shall be subject to the following standards. DEC may reject any plan or updates which: fail to contain all components required by statute / Fails to apply generally accepted engineering, scientific or economic principles and practices / Accomplishes waste reduction by transfers to other environmental media without an environmental benefit from such transfers / Is inconsistent with the preferred hazardous waste management practices hierarchy / Involves conduct prohibited by any applicable law or regulation / Fails to provide a basis for charting waste reduction trends over time.

# NORTH CAROLINA



## STATE P2 PROGRAM SUMMARY

**PROGRAM NAME:** North Carolina Department of Environment, Health, and Natural Resources  
Office of Waste Reduction

**ADDRESS:** PO Box 27687  
 Raleigh, NC 27611-7687

**CONTACT:** Gary Hunt

**PHONE:** (919) 571-4100

**FAX:** (919) 571-4135

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory Agency / P2 Assistance

**EXPERTISE:** Food and Kindred Products / Textile Mill Products / Apparel and Other Finished Products / Lumber and Wood Products / Furniture / Electroplating / Coating and Engraving / Electrical and Electronic Equipment / Solvent Wastestreams / Vehicle Maintenance / Laundries / Construction & Demolition

**P2 MEDIA:** Multi-Media

**P2 RESOURCES:** 17 Full-time / 2 Part-time  
 \$ 903,000 State Funding: general funds  
 \$ 54,000 State Funding: other

**SERVICES:** On-site Consultations (for smaller companies) / Assist Customers in Developing P2 Workplans (for smaller companies) / Computer Searches / Training, Seminars, Workshops / Grants and Loans

## PROGRAM OVERVIEW

This program provides non-regulatory multi-media technical assistance to industries, local governments, and state agencies. It features an information clearinghouse, industry specific waste reduction reports, on-site technical assistance, matching and research grants, training, and education programs. This office has strong ties with the Waste Reduction Centre for the Southeast, particularly in using the centre's resources as means of technical assistance to North Carolina industries.

*Waste Reduction Resource Centre for the Southeast*

- The centre has a collection of technical and waste reduction information from the

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•



national level, from federal agencies, from all 50 states, and from numerous private sources. It serves as a clearinghouse and referral service on upcoming conferences, meetings and new publications. Technical staff prepare reports on industry-specific waste reduction questions. The centre also has the capacity to assign trained engineers to respond to questions regarding specific waste reduction problems. The centre also provides on-site waste reduction assessments and training for regulatory agency and industrial personnel.

*North Carolina State University Pollution Prevention Centre*

- The State Pollution Prevention Office also uses the services of North Carolina University Pollution Prevention Centre as a means of providing technical assistance to industry. The University Centre has the resources to provide on-site guidance to large companies, and is a significant contributor to overall technical support of the State program.

# NORTH CAROLINA FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
TITLE AND DATE OF LEGISLATION	• S.B.324, 1989
KEY WORD USAGE	• Pollution Prevention: encourage waste and pollution reduction through research, information and technical assistance.
PERSONS REQUIRED TO PREPARE A PLAN	• Hazardous waste generators and operators of hazardous waste treatment facilities which treat waste on-site who are required to pay an annual fee under North Carolina law. • Persons required to hold a water quality permit / Persons required to hold an air quality permit.
CLARITY OF STATUTORY OBJECTIVES	• To encourage waste and pollution reduction efforts.
WASTE MANAGEMENT HIERARCHY	• Not mentioned in this statute, but specified in an earlier law: Source reduction / Recycling / Treatment / Disposal
GUIDELINES FOR FACILITY PLANS	• For hazardous waste permits: Written description of any program to minimize or reduce the volume and quantity or toxicity of waste. • For water quality permits: Written description of current and projected plans to reduce the discharge of waste and pollutants by source reduction or recycling. • For air quality permits: Written description of current and projected plans to reduce the emissions of air contaminants by source reduction or recycling.
PERFORMANCE GOALS OF FACILITY PLANS	• Not specified.
REQUIREMENTS OF FACILITY PROGRESS REPORT	• Not specified.
CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE	• Not specified.
EXEMPTIONS FROM COMPLETING FACILITY PLAN	• Not specified.
<b>ENFORCEABILITY</b>	
RULE MAKING AUTHORITY	• The Waste Management Board makes recommendations for rules to the governor.
AGENCY REVIEW OF FACILITY PLANS	• All written descriptions of current and projected plans to reduce hazardous wastes, waste water and pollutant discharges and air contaminant emissions shall be transmitted to the Solid Waste Management Division for review and analysis.
AGENCY REVIEW OF FACILITY PROGRESS REPORTS	• Progress reports are not required, however, plans are required annually.
ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE	• Penalty for failure to submit a hazardous waste minimization plan along with the annual fee.. • Penalty for failure to submit a plan along with an air or water quality permit is a fine or permit revocation.
PLAN APPROVAL CRITERIA	• Not specified.

# OREGON



## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	•
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	•
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	•
INDUSTRY	•

**PROGRAM NAME:** Oregon Department of Environmental Quality  
Waste Reduction Assistance Program  
Toxics Use Reduction Program

**ADDRESS:** 811 SW 6th Ave  
Portland, Oregon 97204

**CONTACT:** Sandy Gurkewitz

**PHONE:** (503) 229-5918

**FAX:** (503) 229-6977

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory Agency / P2 Assistance

**LEGISLATION:** H.B. 3515 Toxics Use Reduction and Hazardous Waste Reduction Act

**EXPERTISE:** Solvent Alternatives / Database and Information Management / Training / Legislation

**P2 MEDIA:** Hazardous Waste / Air Emissions

**P2 RESOURCES:** 4 Full-time  
\$ 500,000 State funding  
\$ 100,000 Federal grant funding

**SERVICES:** On-site Consultations / P2 Plan Development Assistance / Computer Searches or Other Electronic Assistance / Training, Seminars, Workshops / Research and Collaborative Projects

## PROGRAM OVERVIEW

The Oregon Toxics Use Reduction and Hazardous Waste Reduction Act of 1989 was designed to achieve facility-wide changes that reduce, avoid, or eliminate the use of toxic substances and the generation of hazardous wastes by requiring affected parties to develop reduction plans. This state law takes a comprehensive approach to addressing chemical usage from start to finish. Long-term implementation of the law is expected to lower industrial costs and liabilities, as well as to benefit public health and safety and the environment.

Program staff monitor compliance with the law's reporting requirements and provide on-site technical assistance upon request. They provide training workshops to help the planners throughout the state develop and distribute toxics use reduction literature on

various reduction opportunities, and administer the Governor's Award for Toxic Use Reduction, which is a public recognition program for successful companies.

The Oregon Department of Environmental Quality also offers waste reduction audits and other technical assistance for hazardous waste generators and transporters, large users of chemicals listed in Section 313 of the Superfund Amendments and Reauthorization Act (SARA), and businesses. Workshops for hazardous waste generators and specific industries include sessions devoted to waste reduction, such as "Developing Waste Reduction Plans," "Conducting Waste Assessments" and "Oregon's Toxic Use Act". Other features of the program are capacity assurance planning, a technical resource library and clearinghouse, publications, an awards program and a hotline. This program is also responsible for notifying facilities when plans and updates are due and monitoring compliance with the TUR Hazardous Waste Reduction Act, reporting requirements.

#### *Accomplishments*

- From 1991 throughout 1994, approximately, 1,100 facilities (both large and small) have certified that they have successfully completed a TURHWR plan. Nearly half of these facilities were required to and have also developed annual progress report.
- The TUR program has developed approximately 30 publications and fact sheets and distributed over 70,000 to interested persons to date.
- The TUR on-site technical assistance program visited 192 facilities since 1990.
- Six companies have received the Governor's awards for excellence in toxics use reduction.
- From 1991 through 1993, the amount of hazardous waste has declined in the state by nearly 100,000 tons, even though economic activity and manufacturing activity has increased in Oregon during the same time.

# OREGON FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	<ul style="list-style-type: none"> <li>• Toxic Use Reduction and Hazardous Waste Reduction Act. 1989</li> </ul>
<b>KEY WORD USAGE</b>	<ul style="list-style-type: none"> <li>• Toxics Use Reduction: in-plant changes or operations to reduce or eliminate toxic substance use.</li> <li>• Waste Reduction: any means of recycling after waste has been generated.</li> </ul>
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	<ul style="list-style-type: none"> <li>• Large quantity hazardous waste generators.</li> <li>• Small quantity hazardous waste generators.</li> <li>• Facility owners or operators required to report under SARA, Title III, Section 313 (large users).</li> </ul>
<b>CLARITY OF STATUTORY OBJECTIVES</b>	<ul style="list-style-type: none"> <li>• To encourage toxic substance use and hazardous waste generation reduction without shifting risks from one environmental medium to another.</li> </ul>
<b>WASTE MANAGEMENT HIERARCHY</b>	<ul style="list-style-type: none"> <li>• Toxic use reduction / Hazardous waste reduction</li> </ul>
<b>GUIDELINES FOR FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>• Policy statement of upper management and corporate support for the plan and commitment to implement plan goals / Plan scope and objectives, including evaluation of technologies, procedures and personnel training programs / Internal analysis of toxic usage and hazardous waste streams, including evaluation of types and amounts of toxic used and waste generated, where and why toxics were used and waste generated, potential reduction and recycling techniques / Accounting systems that identify toxic use and waste management costs and factor in liability, compliance and oversight costs / Employee awareness and training programs / Institutionalization of plan by incorporation of plan into management practice and oversight costs / Employee awareness and training programs / Plan for implementing technically and economically practicable toxic use and hazardous waste reduction options.</li> </ul>
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>• Establish specific numeric performance goals for the following categories of toxic substances and hazardous wastes: Any toxic substance used in quantities in excess of 10,000 pounds a year / Any toxic substance used in quantities in excess of 1,000 pounds a year that constitutes 10% or more of the total toxic used, and for large quantity generators, any waste representing 10% or more by weight of cumulative waste stream generated per year.</li> </ul>
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	<ul style="list-style-type: none"> <li>• Analyze progress made, if any, in toxic use reduction and hazardous waste reduction, relative to each performance goal established in the plan / Set forth amendments in the plan and explain the need for amendments / Submit report to DEQ on quantities of toxic used and wastes generated that meet performance goal criteria, and a narrative explaining the data.</li> </ul>
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	<ul style="list-style-type: none"> <li>• Impediments may include the availability of technically practicable toxic use reduction and hazardous waste reduction methods, including any anticipated changes in the future. Examples of such situations where reduction may not be economically practicable may include: For valid reasons of priority, a company chooses to first address other more serious toxic use reduction or hazardous waste concerns / Necessary steps to reduce toxic use and hazardous waste will likely have significant adverse impacts on product quality / Legal or contractual obligations interfere with the necessary steps that would lead to toxic use reduction or hazardous waste reduction.</li> </ul>
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	<ul style="list-style-type: none"> <li>• The definition of toxic substance does not include a substance used, a pesticide or herbicide in routine commercial agricultural applications.</li> <li>• Conditionally exempt small quantity generators are not required to develop plans.</li> <li>• The law does not apply to hazardous waste generated by remedial activities taken in response to environmental contamination.</li> </ul>
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	<ul style="list-style-type: none"> <li>• The Environmental Quality Commission can add or delete chemicals from required listing, which is incorporated into the rule.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>• Upon completing a plan, the user must notify DEQ in writing on a form supplied by DEQ / Plans shall be retained at the facility / Toxic users shall permit any DEQ employee to inspect the plan.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	<ul style="list-style-type: none"> <li>• DEQ may review any progress report.</li> <li>• Progress reports shall remain at the facility.</li> <li>• All toxic users shall annually complete a toxics use reduction and hazardous waste reduction progress report.</li> </ul>
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	<ul style="list-style-type: none"> <li>• If a toxic user fails to develop an adequate plan or progress report according to DEQ's required modifications, DEQ may issue an administrative order requiring the user to submit a plan or progress report. If the user fails to submit an adequate plan or progress reports within the time specified, DEQ shall conduct a public hearing on the plan or progress report. In any hearing, the relevant plan or progress report shall be considered public record, except for trade secret information.</li> </ul>
<b>PLAN APPROVAL CRITERIA</b>	<ul style="list-style-type: none"> <li>• In reviewing the adequacy of any plan or progress report, DEQ shall base its determination solely on whether the document is complete and prepared in accordance with planning guidelines.</li> </ul>



# RHODE ISLAND



**PROGRAM NAME:** Rhode Island Department of Environmental Management  
Office of Environmental Coordination Pollution Prevention

University of Rhode Island, Chemical Engineering Dept.

**ADDRESS:** 63 Park Street  
 Providence, RI 02903

**CONTACT:** Richard Girasole, Jr.

**PHONE:** (401) 277-3434

**FAX:** (401) 277-2591

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory  
 Agency / P2 Assistance

**EXPERTISE:** Wastewater / Textile Mill Products / Primary Metal Industries /  
 Electroplating / Coating and Engraving / Food and Kindred  
 Products / Textile Mill Products / Apparel and other Finished  
 Products / Paper and Paper Products / Printing and Publishing /  
 Organic Chemicals / Petroleum Chemicals / Rubber and Plastic  
 Products / Fabricated Metal / Machinery / Electrical and  
 Electronic Equipment / Transportation Equipment / Photographic  
 Products / Medical Products / Membrane Separations / Process  
 Evaluation and design .

**P2 MEDIA:** Hazardous Waste / Solid (non hazardous) Waste / Air Emissions /  
 Waste Water

**P2 RESOURCES:** 8 Full-time / 10 part-time  
 \$ 350,000

**SERVICES:** On-Site Consultations / On-Site Assessments / P2 Program  
 Development / Computer Searches / Training, Seminars,  
 Workshops / Grants and Loans / Research and Collaborative  
 Projects

## PROGRAM OVERVIEW

This program provides technical assistance for industries and businesses, on-site waste reduction assessments, an awards program, conferences and workshops that include pollution prevention topics, and hazardous waste technology, research, development and demonstration with the University of Rhode Island and industries. It has a waste reduction information clearinghouse and disseminates a newsletter and other publications.

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•

The University of Rhode Island Chemical Engineering Department has a program in which advanced students and their professors develop and evaluate pollution prevention engineering solutions for Rhode Islands firms. These firms are referred by the Rhode Island Department of Environmental Management's (DEM) voluntary pollution prevention technical assistance program.

DEM's Pollution Prevention Program maintains a cross-media perspective; risks are not transferred from one medium to another. The Pollution Prevention Program includes the following major activities:

- **The Industrial Pollution Prevention Program:** conducts pollution prevention assessments to assist businesses in the identification of source reduction opportunities and monitors and tracks new advancements in source reduction and pollution prevention methods. More than 150 companies have been visited since the inception of the program with over 8,000 tons of industrial waste and wastewater eliminated. 40-60% of the companies visited have implemented at least one pollution prevention recommendation.

- **Pollution Prevention in Municipal Pretreatment Programs:** With the assistance of RI DEM's Pollution Prevention staff, the Narragansett Bay Commission, Rhode Island's largest POTW, is incorporating pollution prevention policies and procedures into their sewer connection permitting process and enforcement actions.

- **University Technical Support:** The University of Rhode Island's Chemical Engineering Department has played a key role in Rhode Island's on-site technical assistance program. Undergraduate, Graduate and Ph.D. candidates are employed in pollution prevention engineering work. The University employs the latest analytical technologies for use by the pollution prevention program participants.

- **Generic Packages:** These are process specific generic pollution prevention packages for industry which serve as guidelines for the development and implementation of pollution prevention methods and technologies.

- **Rhode Island's Pollution Prevention Grants Program:** Was established in 1987. The program made its first grant award in 1988 and has since funded seventeen separate studies at a cost of approximately \$ 924,000. Grant recipients have included industry, universities, a state agency, and a manufacturing trade organization.

To date more than 20 workshops have been held and 15 speaking engagements are held per year. The Office's clearinghouse activities include the development of pollution prevention newsletters, fact sheets, and responses to program inquiries.

DEM's Pollution Prevention program is non-regulatory. DEM Divisions of Air Resources, Waste Management, and Water Resources often make technical assistance referrals to the P2 group. Regulatory divisions participate in a number of pollution prevention projects including: Project to integrate pollution prevention into industrial pretreatment enforcement programs, RI Pollution Prevention Council, RI Small Business Assistance Program within the P2 Program office, DEM Pollution Prevention P2 Grants Program and Technology Review Board Start-up.

# TENNESSEE



TENNESSEE

**PROGRAM NAME:** Tennessee Valley Authority  
Industrial Waste Reduction

**ADDRESS:** 400 West Summit Hill Drive  
Knoxville, TN 37902-1499

**CONTACT:** Steve Hillenbrand

**PHONE:** (615) 632-8489

**FAX:** (615) 632-8085

**PROGRAM TYPE:** Regional Program / Non-Regulatory Office / P2 Assistance /  
Regulatory Assistance / Federal Government

**EXPERTISE:** Electroplating / Coating and Engraving / Database and  
Information Management / Training / Financial Assistance /  
Legislation / Partnering

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Wastewater /  
Air Emissions / Multi-Media

**P2 RESOURCES:** 4 Full-time / 1 Part-time  
\$ 200,000 Federal Grant funding  
\$ 300,000 Direct Federal funding

**SERVICES:** On-site Consultations / On-site Assessments / Assist Customers in  
Developing P2 Plan / Computer Searches / Training, Seminars,  
Workshops / Grants and Loans / Research and Collaborative  
Projects

## PROGRAM OVERVIEW

This program provides technical assistance for industries, small communities, and government agencies, as well as free confidential on-site waste reduction audits. It also conducts pollution prevention workshops, seminars, and conferences. Other features are an information clearinghouse, challenge grants for hazardous waste generators, and an award program. This program in conjunction with the University of Tennessee provides industry with the required technical assistance for developing waste reduction plans that are mandated under State legislation.

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	•
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	•
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	•
INDUSTRY	•

**PROGRAM NAME:** University of Tennessee  
Centre for Industrial Services

**ADDRESS:** 226 Capital Blvd. Suite 606  
 Nashville, TN 37219-1804

**CONTACT:** George Smelcer

**PHONE:** (615) 532-4912

**FAX:** (615) 532-4937

**PROGRAM TYPE:** University / Non-Regulatory Office / P2 Assistance / Regulatory Assistance

**LEGISLATION:** Public Chapter 578 (1988) Established a Waste Reduction Policy and Program  
 House Bill 2217 (1990) Requires Large and Small Quantity Generators To Develop Waste Reduction Plans

**EXPERTISE:** Rubber and Plastic Products / Electroplating / Coating and Engraving / All other Fabricated Metal /  
 Transportation Equipment / Vehicle Maintenance / Laundries / Dry Cleaners / Training

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Multi-Media

**P2 RESOURCES:** 9 Full-time / 2 Part-time  
 \$ 320,000 State funding: general funds  
 \$ 100,000 State funding: waste taxes  
 \$ 130,000 Federal grant funding

**SERVICES:** On-site Consultations / On-site Assessments / Assist customers in developing P2 Plans / Training,  
 Seminars, Workshops / Research and collaborative Projects

### PROGRAM OVERVIEW

This program, offered by the University of Tennessee, includes industry-specific workshops, workshops for Federal and State agency staff, case studies, national teleconferences on waste reduction opportunities, videos of previous teleconferences, interactive training modules, comprehensive training manuals, and on-site waste reduction assessments conducted by full-time field engineers and retired engineers.

#### *Waste Reduction and Technology Transfer Program (WRATT)*

- Retired engineers, scientists and other professionals with extensive plant experience are available through the University to assist Tennessee companies with waste reduction. Many of the analysts have thirty to forty years of experience with Tennessee industries. The WRATT program provides free, confidential, non-regulatory, voluntary waste reduction assessments for Tennessee industries that request services. Each operation is viewed for potential waste reduction strategies and opportunities, including source reduction, reuse, recycling, and energy efficiency. Written confidential reports identify waste reduction options and contain specific recommendations to save money, increase efficiency, reduce need for costly disposal facilities, reduce liability, and promote a positive public image. There is no obligation to implement the recommendation of WRATT analysts. All industries in Tennessee are eligible to participate. Follow up with companies assisted by WRATT Foundation has shown a benefit cost ratio of 36 to 1, with average annual cost savings of \$ 90,000 per assessment.

### *Increasing Awareness*

- Through this program, the office sponsors and co-sponsors events, arranges presentations to a variety of audiences, distributes targeted mailings, and provides articles for external (trade associations) publications. In addition, Education and Outreach staff have developed relationships with trade associations and other organizations to co-sponsor workshops and expand the division's access to other networks for broader outreach.



# TENNESSEE FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• H.B. 2217, 1990
<b>KEY WORD USAGE</b>	• Hazardous Waste Reduction: waste, where feasible, is to be prevented or reduced / If produced, store, treat, and dispose of for human and environmental protection.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Large quantity hazardous waste generators. • Small quantity hazardous waste generators.
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To reduce the aggregate level of hazardous waste generated by 25% by June 30, 1995
<b>WASTE MANAGEMENT HIERARCHY</b>	• Reduce or prevent hazardous waste generation / Storage, treatment and disposal.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Policy statement of management support for the plan / Plan scope and objectives, including evaluation of technologies, procedures and personnel training program to ensure that unnecessary waste is not generated / Description of hazardous waste reduction options and an implementation schedule. Options must be based on internal analysis of waste stream, including evaluation of types and amounts of waste generated, where and why waste was generated and potential reduction and recycling techniques. / Accounting systems that identify waste management costs and factor in liability, compliance and oversight costs / Employee awareness and training programs / Description of how plan has been or will be incorporated into management practices and procedures to insure an ongoing effort.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Specific performance goals shall be quantitative goals, expressed in numeric terms, established for source reduction of each waste stream. When possible, units of measurement should be in pounds (or tons) of waste generated per standard unit of production, as defined by the generator. If numeric performance goals are not practical, performance goals shall include a clearly stated list of actions designed to lead to the establishment of numeric goals as soon as practical.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Analyze and quantify progress made, if any, in hazardous waste reduction, relative to each performance goal established in the plan / Set forth amendments, if needed, to the plan and explain the need for amendments / The following summary information must be submitted to the Department of Health and Environment (DHE) as an element of the annual generator report: for each hazardous waste stream, the following is appropriate: a statement of specific performance goals and a report on progress made in achieving these goals, a report on the actions taken toward establishing numeric goals, a narrative explaining the reported data, a description of any impediments to reducing hazardous waste generation.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• For valid reasons of priority, a company chooses to first address other more serious hazardous waste reduction concerns / Necessary steps to reduce hazardous waste will likely have significant adverse impacts on product quality / Legal or contractual obligations interfere with the necessary steps that would lead to hazardous waste reduction.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Waste shall not include waste water streams containing hazardous wastes that are collected and treated in on-site waste water treatment systems, the discharge of which is the subject of NPDES permit.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• Not specified.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Upon completing a plan, the generator shall maintain a current copy of the plan at the facility / Generators shall permit the commissioner's designee to inspect the plan. Generators shall permit an officer, employee or DHE representative to have access to the plan / Generators shall furnish a copy of the plan upon request to DHE.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• Progress reports shall be retained at the facility, except for the information specified by statute to be reported to DHS / Generators shall permit any officer, employee or DHS representative at all reasonable times to have access to the progress report. • Based on their annual progress report, generators shall annually submit to DHE summary information on waste activities.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Civil penalties up to \$ 10,000 shall be imposed on any generator or person who: fails to file any required report, records or documents / Fails, neglects or refused to comply with any statutory provisions or orders issued pursuant to the statute / Knowingly gives false information in any required report, record or document.
<b>PLAN APPROVAL CRITERIA</b>	• DHS may review a plan or annual report to determine whether the document reasonably contains the elements specified by statute.

# TEXAS



**PROGRAM NAME:** Texas Natural Resources Conservation Commission  
Office of Pollution Prevention and Recycling

**ADDRESS:** PO Box 13087  
 Austin, TX 78711-3097

**CONTACT:** Andrew C. Neblett

**PHONE:** (512) 239-3100

**FAX:** (512) 239-3165

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory Agency

**EXPERTISE:** Printing and Publishing / Organic Chemicals / Inorganic Chemicals / Petroleum Refining / Rubber and Plastic Products / Stone, Glass, and Clay / Primary Metal Industries / Electroplating / Coating and Engraving / Electrical and Electronic / Transportation Equipment / Database and Information Management / Training

**P2 MEDIA:** Hazardous Waste / Solid (non-hazardous) Waste / Wastewater / Multi-Media

**P2 RESOURCES:** 27 Full-time / 3 Part-time

**SERVICES:** On-site Assessments / Assist Customer In Developing P2 Program / Computer Searches or Other Electronic Assistance / Training, Seminars, Workshops

## PROGRAM OVERVIEW

The commission's on-site assistance involves staff providing non-regulatory assistance to facilities. Staff also provide pollution prevention planning assistance through workshops and review of source reduction and waste minimization plans required by the Texas Waste Reduction Policy Act of 1991. Clean Texas 2000 is a statewide pollution prevention program for businesses, industries, local governments, schools, civic organizations, and citizens.

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	•
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	•
INDUSTRY	•

The commission serves as the state's Toxic Release Inventory coordinator by assisting industries in complying with the regulations. The commission's waste exchange program is titled, *Resource Exchange Network for Eliminating Waste*. The commission also produces publications, guidance documents, and other information materials for citizens, groups and industries.

# TEXAS FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	<ul style="list-style-type: none"> <li>Waste Reduction Policy Act, 1991</li> </ul>
<b>KEY WORD USAGE</b>	<ul style="list-style-type: none"> <li>Source Reduction: any practice which reduces the amount of any hazardous substance or pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and reduces the hazard to the public health and the environment associated with the release of such substances, pollutants, or contaminants</li> <li>Waste Minimization: A practice that reduces the environmental hazards associated with hazardous wastes, pollutants, or contaminants.</li> </ul>
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	<ul style="list-style-type: none"> <li>All Large Quantity Generators (LOG) of hazardous waste.</li> <li>All generators other than large quantity generators and conditionally exempt generators.</li> <li>Persons subject to Sec. 313, Title III, Superfund Amendments and Reauthorization Act 1986</li> </ul>
<b>CLARITY OF STATUTORY OBJECTIVES</b>	<ul style="list-style-type: none"> <li>Reduce pollution at the source and to minimize the impact of pollution in order to reduce risk to public health and the environment and continue to enhance the quality of the air, land, and waters of the state where feasible.</li> </ul>
<b>WASTE MANAGEMENT HIERARCHY</b>	<ul style="list-style-type: none"> <li>Source reduction is the primary goal / Waste minimization, if reduction is not possible.</li> </ul>
<b>GUIDELINES FOR FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>Where appropriate, facilities need to separately address source reduction and waste minimization options in a plan.</li> <li>Plans Must include: Initial survey identifying activities generating hazardous waste, if applicable, activities resulting in a release of pollutants on a "common list of pollutants: as developed by the "The Commission" and a prioritized list of feasible source reduction and waste minimization projects / An explanation of projects to be undertaken with technical, economic, and health discussions / Estimates of type and amount of waste reduction or minimization expected / Goals for the entire facility, with incremental breakdown for evaluation / Employee awareness and training programs / Certification by facility owner of plan accuracy.</li> </ul>
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>Not specified performance goals except those specified by the facility in the plan.</li> </ul>
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	<ul style="list-style-type: none"> <li>Assessments of progress toward source reduction and minimization goals / The amount of hazardous waste generated and / or released in the last year and comparison with base year totals / Any plan modifications / Reports will deal with source reduction and waste minimization separately.</li> </ul>
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	<ul style="list-style-type: none"> <li>Not specified.</li> </ul>
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	<ul style="list-style-type: none"> <li>This section does not apply to a facility regulated by Railroad Commission of Texas under Sec.91.101 or 141.012 of the Natural Resources Code.</li> </ul>
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	<ul style="list-style-type: none"> <li>The Texas Water Commission ( The Commission) and the Texas Air Control Board are given the authority to carry out their powers, duties, and policies and to and promulgate rules consistent with the Act.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>The Commission or the Board may review a plan for compliance with adopted rules.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	<ul style="list-style-type: none"> <li>The Commission or the Board may review a plan for compliance.</li> <li>Progress reports and executive summaries are to be submitted to the Commission on an annual basis.</li> </ul>
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	<ul style="list-style-type: none"> <li>Failure to have a source reduction and waste minimization plan or annual report is a violation.</li> </ul>
<b>PLAN APPROVAL CRITERIA</b>	<ul style="list-style-type: none"> <li>The Commission or the Board may review the plan or annual report for compliance.</li> </ul>



# VERMONT



VERMONT

**PROGRAM NAME:** Vermont Department of Environmental Conservation (DEC)  
Pollution Prevention Division

**ADDRESS:** Hazardous Materials Division West Office Building  
103 South Main Street  
Waterbury, VT 05671-0404

**CONTACT:** Paul Van Hollebeke

**PHONE:** (802) 241-3888

**FAX:** (802) 241-3296

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory Agency

**EXPERTISE:** Printing and Publishing / Vehicle Maintenance

**P2 MEDIA:** Hazardous Waste

**P2 RESOURCES:** 5 Full-time / \$300,000  
(Annual Plan Fees From Industries)

**SERVICES:** On-site Consultations / Computer Searches or Other Electronic Assistance / Training, Seminars, Workshops / Grants and Loans / P2 Facility Plan Development / Review and Evaluate Facility Plans

## PROGRAM OVERVIEW

The Vermont Pollution Prevention Division was established in 1992 as a non-regulatory division within the Vermont DEC to oversee Toxic Use and Hazardous Waste Reduction Planning and to provide technical assistance to business and industry. Although the Division oversees compliance with the planning requirement, the emphasis in the program is on assisting companies to develop approvable plans. There are currently over 300 companies subject to hazardous waste reduction planning. There will be a few hundred more companies subject to toxic use reduction planning in 1995. Beside the basic assistance elements (workshops, on-site assistance, clearinghouse, newsletter), the Division also has a statutory charge to promote pollution prevention within state government, promote multimedia coordination, and review DEC rules to ensure that pollution prevention is encouraged.

The Division has devoted a significant amount of time and resources to industry specific workshops, conferences and focus group meetings. Focus group meetings were designed

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	•
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	•
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	•
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•



as a series of meetings with specific industries to provide them with the tools necessary to develop adequate plans. Emphasis was placed on identifying and evaluating technically feasible P2 opportunities, developing process flow diagrams, and economic feasibility evaluation of projects. Focus group meetings with the following industries have been held: electronics, printing, metal-intensive industries, furniture finishing, automotive service and repair, dry cleaners, hospitals, plastics and fiberglass, electrical utilities, and ski areas. These meetings are coordinated with other regulatory and technical assistance media programs.

In 1993 a major outreach effort to automotive service and repair industries was made with a series of five day-long workshops around the state and 13 breakfast seminars. The Division has worked with many businesses to develop case studies and sample pollution prevention plans. The Division plans to continue outreach and assistance through the EPA's Pit Stops program and further workshops to be offered on interactive TV.

On-Site Assistance has been limited due to the small staff in the program. To provide for on-site assistance the Division established the Retired Engineers and Professionals (REAP) Program in 1992 with over 20 participants in the program and more than 55 assessments completed or in progress.

The Division reviews plans that have been submitted and assesses the direction of future outreach efforts. The industry-specific group meetings have been extremely effective and are to continue as a primary outreach method. Case study development is also underway. The Division is also responsible for overseeing an environmental assessment and pollution prevention planning for the Agency of Natural Resources and may soon take on oversight roles for state government planning in this area.

The Division coordinates a DEC Pollution Prevention Task Force. There is one subcommittee of the task force focusing on cross-program coordination. The office has been developing a pilot program for further multimedia coordination of inspection programs. P2 training for regulatory staff is in early planning stages.

Pollution Prevention Division files are not accessible by regulatory programs. On-site visits and information gathered are confidential. Only requirement of P2 staff is to report situations posing imminent danger to health or the environment.

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**PROGRAM NAME:** Retired Engineers and Professionals Pollution Prevention Program  
(REAP)

**ADDRESS:** 50 Southridge Dr.  
Williston, VT 05495

**CONTACT:** Muriel Durgin

**PHONE:** (802) 879-4703

**PROGRAM TYPE:** Non-Profit / Non-Regulatory Office / P2 Assistance

**EXPERTISE:** Furniture / Printing and Publishing / Organic Chemicals / Inorganic Chemicals / Electroplating / All other Fabricated Metal / Transportation Equipment / Vehicle Maintenance / Ski Areas

**P2 MEDIA:** Solid (non-hazardous) Waste

**P2 RESOURCES:** 8 part-time / \$ 65, 000 (State funding)

**SERVICES:**

On-site Consultations / Assist Customer in Developing P2 Plan / Computer Searches and other Electronic Assistance / Grants and Loans / Review and Evaluate Facility Plans

**PROGRAM OVERVIEW**

The Retired Engineers and Professionals (REAP) Pollution Prevention Program began in August 1992 as a means of providing on-site technical assistance to Vermont's private sector. Administered by Vermont WasteCap under the sponsorship of Associated Industries of Vermont- a non profit trade organization for Vermont manufacturers, the program provides professional on-site assistance that is both confidential and non-regulatory, available at no cost to industries choosing to partake of the service. The success of the program is a combination of dedicated REAP associates who network their expertise to recommend innovative solutions to waste management dilemmas, and regulatory requirements for the development of Toxic Use Reduction and Hazardous Waste Management Plans.

Since August 1992, REAP Associates have completed P2 Assistance with 100 on-site assessments. The REAP teams present a report summarizing current and recommended pollution prevention strategies to the industry receiving the REAP visit. Teams consist of 2-3 REAP associates and sometimes a member of the state's Pollution Prevention Division (with permission from the industry). Each REAP Associate may spend up to 40 hours completing research on the assessment, however, most visits are completed with less than 60 total hours of staff time.

The REAP program has maintained a pool of 25 associates whose backgrounds include chemical engineering, electronics, aerospace engineering, machine tooling, and plant management. Associates are regularly offered training opportunities in P2 technologies. Associates are paid a nominal hourly fee and are reimbursed for their expenses. WasteCap provides administration of program, averaging about 8 hours per week. A close working relationship exists between REAP and the Pollution Prevention Division. Staff from the state program participate in all training aspects of the REAP Associates, review reports, and attend on-site assessments when invited. Regulatory staff are used as resources only. They do not have access to the reports written by REAP teams.

# VERMONT POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• H. 733, 1990
<b>KEY WORD USAGE</b>	• Hazardous Material Management: through the practices of source reduction to cause a net reduction of hazardous waste.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Persons who routinely generate, through ongoing process and operation, more than 1200Kg acutely hazardous waste per year.
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To safeguard public health, promote worker safety and protect the environment by establishing toxic use reduction as the top priority of hazardous waste and toxic management.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Source reduction / Recycling / Treatment.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Name, Location, SIC code of site / Identification of each routinely generated hazardous waste resulting from on-going processes or operations that have a yearly weight less than 5% of total yearly weight / Estimate of quantity of hazardous waste generated / Evaluation of feasible source reduction methods / Specifications of, and rationale for, feasible source reduction methods which will be taken for each waste stream; rationale for rejecting any available source reduction method. Evaluation of effects of chosen source reduction methods so as not to adversely affect compliance with applicable laws and regulations on emissions and to air, water discharges or land.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Specific performance goals are not required, however, plan must include a timetable for making reasonable and measurable progress toward implementing selected source reduction methods.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Assessment of the effect, during the current year, of each hazardous materials management measure implemented since baseline year, upon on-site hazardous waste generation / Description of factors during current year that have affected hazardous waste generation, hazardous materials releases and on-site and off-site hazardous waste management since baseline year / Certification by a professional engineer; or a process or operations personnel on-site.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• ANR shall adopt rules for exempting from facility planning requirements generators for whom the secretary determines no source reduction opportunities exist.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• The Secretary can adopt rules to carry out the source reduction program, a subchapter of H.733
<b>AGENCY REVIEW OF FACILITY PLANS</b>	<ul style="list-style-type: none"> <li>• Every 2 years, ANR shall select at least 2 categories of generators by SIC code with potential for source reduction and must examine their source reduction review and plans to determine whether generators have complied with statutory requirements.</li> <li>• ANR may request a copy of the source reduction review and plan from any generator and may evaluate any document to determine whether it satisfies statutory requirements.</li> </ul>
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	<ul style="list-style-type: none"> <li>• Hazardous materials management performance reports, documenting hazardous materials management approaches implemented by the generator, must be prepared by generators and submitted as part of the generator's hazardous waste annual report.</li> <li>• Hazardous materials management performance reports must be submitted annually</li> </ul>
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• No penalties
<b>PLAN APPROVAL CRITERIA</b>	• ANR may evaluate any of the documents submitted to determine whether they satisfy statutory requirements.

# VIRGINIA



VIRGINIA

**PROGRAM NAME:** Virginia Department of Environmental Quality  
Office of Pollution Prevention

**ADDRESS:** P.O. Box 1009  
Richmond, VA 23240-0009

**CONTACT:** Sharen K. Baxter

**PHONE:** (804) 762-4344

**FAX:** (804) 762-4344

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory Agency / P2 Assistance

**EXPERTISE:** Textile Mill Products / Printing and Publishing / Electroplating / All other Fabricated Metal / Vehicle Maintenance

**P2 MEDIA:** Multi-Media

**P2 RESOURCES:** 3 Full-time / 2 Part-time  
\$ 100,000 State Funding: general funds  
\$ 250,000 Federal Grant Funding

**SERVICES:** On-site Consultations / Training, Seminars, Workshops / Computer Searches

## PROGRAM OVERVIEW

The Office of Pollution Prevention, was established in the fall of 1988 in the Office of Policy, Planning and Public Affairs, as a free, voluntary pollution prevention technical assistance program. An information clearinghouse and technical assistance, were established in the initial years of the program.

During the period between 1990-1993, the primary activities of the Office were those associated with the Inter-agency Multi-Media Pollution Prevention Project (IMPP), funded under a grant from the U.S. EPA. The goal of the IMPP project was to establish a cooperative pollution prevention effort between the Department of Waste Management, the Department of Air Pollution Control and the State Water Control Board, formerly the three principal environmental regulatory agencies in Virginia before they were consolidated into the Department of Environmental Quality in April, 1993.

Under the IMPP project, several industries were targeted for assistance, including ship building and repair, wood furniture manufacturing and commercial printing. Outreach efforts were conducted under the IMPP project which included workshops for ship

## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	•
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•



repairers, a video for commercial printers and a manual/guide for wood furniture manufacturers, all of which were completed with assistance from trade associations and representatives of the industry. In addition to outreach to industry, the IMPP project team developed a one-day training workshop for staff of three regulatory agencies, including personnel from air, water and waste programs.

The core of the OPP is an information clearinghouse that contains an extensive collection of fact sheets, case studies, hard copy publications, videos, journals and other materials related to pollution prevention. The Office offers clients customized research, and clients have direct access to engineering staff and other researchers for advice. Consultant and vendor files, provided to program clients on demand, also are maintained.

The current staff of OPP consists of three full-time (manager, environmental engineer and marketing /sales representative) and three part-time (environmental engineer and two environmental program analysts) employees. Two general functions are at the core of the program: technical assistance and marketing. Activities include providing both telephone and written consultations, developing publications and other outreach materials, and conducting site visits to evaluate pollution prevention options.

During the past several years, OPP has found that targeted training, in the form of workshops, presentations and teleconferences, is an efficient and effective way of transferring pollution prevention information to a variety of audiences. OPP staff have made more than 35 presentations over the past two years to various audiences across Virginia. Topics addressed include a general pollution prevention overview, how to conduct pollution prevention opportunity assessments, and pollution prevention techniques for particular industries.

One of the primary ways that OPP has promoted pollution prevention is through the production, marketing and distribution of information products. The purposes of these materials are to motivate organizations to adopt pollution prevention strategies and to educate these groups on how to implement pollution prevention projects. OPP has taken a very broad approach to developing materials and tries to tailor each item for its intended audience. For this reason, OPP has moved beyond the traditional report format to means such as videotapes, posters and newsletters.

In addition to the various information and materials produced by OPP, facility-based technical assistance services are provided, primarily in the form of pollution prevention opportunity assessments. The assessment includes the identification and quantification of all waste streams; recommendations are prepared regarding pollution prevention options that could be implemented by the facility to prevent or reduce waste generation.

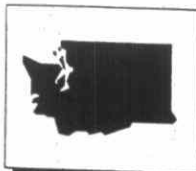
OPP has initiated an effort to identify opportunities to institutionalize incentives for voluntary pollution prevention within the Department's regulatory programs. Areas targeted by this effort include the traditional regulatory functions of permitting, inspections and enforcement.

The Office functions as the focal point for pollution prevention activities within Virginia. OPP staff members coordinate their efforts with other organizations, such as universities, and trade associations. To assist the Department in implementing pollution prevention, an advisory committee consisting of representatives of industry, government, and citizen groups was established in 1993.



# VIRGINIA FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• Pollution Prevention Act, 1993
<b>KEY WORD USAGE</b>	• Pollution Prevention: eliminating or reducing the use, generation or release at the source of environmental waste. Methods include, but are not limited to equipment or technology modifications; process or procedure modifications; reformulating or redesign of products; substitution of raw materials; improvements in housekeeping, maintenance, training, or inventory control; and closed loop recycling, on-site process related recycling, reuse, or extended use of any material utilizing equipment or methods integral to production.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Voluntary program, no plan required.
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• Encourage pollution prevention activities by removing barriers and providing incentives and assistance, and that the generation of environmental waste should be reduced or eliminated at the source. Also, to minimize the transfer of environmental waste from one environmental medium to another.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Source Reduction / Reuse / Recycle / Environmentally sound disposal.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Not specified.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Not specified.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Not specified.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Not specified.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• Not specified.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Not specified.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• Not specified.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• Not specified.
<b>PLAN APPROVAL CRITERIA</b>	• Not specified.



## WASHINGTON



### STATE P2 PROGRAM SUMMARY

**PROGRAM NAME:** Washington State Department of Ecology  
Hazardous Waste and Toxics Reduction Program

**ADDRESS:** PO Box 47600  
Olympia, WA 98504-7600

**CONTACT:** Peggy Morgan

**PHONE:** (206) 407-6705

**FAX:** (206) 407-6715

**PROGRAM TYPE:** State Government / Regional Program / Non-Regulatory Agency / P2 Agency / P2 Assistance / Regulatory Assistance

**EXPERTISE:** Food and Kindred Products / Lumber and Wood Products / Furniture / Paper and Paper Products / Printing and Publishing / Organic Chemicals / Inorganic Chemicals / Petroleum Refining / Rubber and Plastic Products / Primary Metal Industries / Electroplating / Coating and Engraving / All other Fabricated Metal / Machinery (except electrical) / Electrical and Electronic Equipment / Transportation Equipment / Photographic Products / Medical Products / Vehicle Maintenance / Laundries / Dry Cleaners / Construction & Demolition / Training / Legislation

**P2 MEDIA:** Hazardous Waste

**P2 RESOURCES:** 35 Full-time  
\$ 2,250,000 State Funding: Waste Taxes  
\$ 200,000 Federal Grant Funding

**SERVICES:** Computer Searches or Other Electronic Assistance / Training, Seminars, Workshops / On-Site Assistance

### PROGRAM OVERVIEW

In March 1990, Washington State passed the Hazardous Waste Reduction Act, which requires certain hazardous substance users and hazardous waste generators to develop pollution prevention plans and submit annual progress reports. Program staff provide free non-regulatory technical assistance, including on-site pollution prevention assessments and guidance on how to develop a pollution prevention plan. They also develop and distribute written guidance on a wide variety of pollution prevention topics. The program organizes pollution prevention workshops throughout the state, operates a resource centre which makes pollution prevention information available to the public and industry, and publishes a free quarterly newsletter called *shoptalk*.

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	•
REDUCTION TARGETS	
STATE WIDE	•
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	•
VOLUNTARY PLANS	
PROGRESS REPORTS	•
PLAN SUMMARIES	•
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	•
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	•
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•

### *Pollution Prevention Library*

- The P2 library contains current technical information on pollution prevention opportunities for specific industrial processes. A series of guidance documents geared towards specific industries is available to Washington industries and businesses upon request. The P2 library has access to technical reports, scientific journals, case studies, trade publications, and other data that can help industry address specific pollution prevention problems. The library also has a wide array of industry specific or process specific fact sheets and various case study documents.

### *Shoptalk Newsletter*

- The Hazardous Waste and Toxics Reduction Program publishes a quarterly newsletter, which contains technical information, as well as news of upcoming seminars and workshops, P2 projects and pertinent issues. Case study examples are illustrated in the newsletter promoting the cost / benefit advantages of incorporating P2 into industrial operations.

### *Workshops / Seminars*

- The program offers training through workshops and seminars for agency personnel with industry expertise in order to encourage better pollution prevention incorporation into permits, inspections and enforcement actions. The program is involved with many training activities for both internal staff and outside parties. Over twenty workshops for industry have been conducted in the last year on subjects such as P2 planning, providing P2 training to company employees, and tools for meeting Washington's legislated environmental requirements.

### *On-Site Visits*

- Staff help identify pollution prevention options and aid in the development of a sustainable pollution prevention program. Plant walk-through inspections are employed where program staff visit plants and provide recommendations and assistance in developing the P2 workplans. Industry specific plans have been developed by program staff as a guideline for businesses to meet workplan development requirements.

## WASHINGTON FACILITY POLLUTION PREVENTION PLANNING LEGISLATION

<b>SPECIFICITY</b>	
<b>TITLE AND DATE OF LEGISLATION</b>	• H.B. 2390, 1990
<b>KEY WORD USAGE</b>	• Waste Reduction: all in-plant practices that reduce, avoid, or eliminate the generation of wastes or toxicity prior to generation.
<b>PERSONS REQUIRED TO PREPARE A PLAN</b>	• Persons who generate more than 2649 pounds of hazardous waste per year. • Facility owners or operators required to report under SARA, Title III, Section 313 except those facilities that are primarily permitted treatment, storage and disposal facilities or recycling facilities (hazardous substance users).
<b>CLARITY OF STATUTORY OBJECTIVES</b>	• To reduce hazardous waste generation by 50% by 1995 through hazardous substance use reduction and waste reduction techniques.
<b>WASTE MANAGEMENT HIERARCHY</b>	• Hazardous substance use reduction / Hazardous waste reduction / Recycling / Treatment.
<b>GUIDELINES FOR FACILITY PLANS</b>	• Policy statement of corporate support for plan / Analysis of current hazardous substance use and waste generation and current reduction, recycling and treatment activities / Identification and selection of further reduction, recycling and treatment options / Policy stating that in implementing selected options risks will not be shifted from one process, environmental media or product to another / Hazardous waste accounting systems which factor in liability, compliance and oversight costs / Financial description of plan / Employee training and involvement programs / 5 year plan implementation schedule.
<b>PERFORMANCE GOALS OF FACILITY PLANS</b>	• Specific performance goals must be expressed in numeric terms for each of the following categories: hazardous substance use reduction or elimination / waste elimination or reduction / recycled materials or wastes / treated wastes. • If the establishment of numeric performance goals is not practical, goals shall include a clearly stated list of objectives designed to lead to numeric goals as soon as practical.
<b>REQUIREMENTS OF FACILITY PROGRESS REPORT</b>	• Description of progress made toward achieving the specific performance goals established in the plan.
<b>CONDITIONS WHERE P2 MAY NOT BE PRACTICABLE</b>	• Not specified.
<b>EXEMPTIONS FROM COMPLETING FACILITY PLAN</b>	• Not specified.
<b>ENFORCEABILITY</b>	
<b>RULE MAKING AUTHORITY</b>	• The DEQ can adopt rules pertaining to the preparation of plans by hazardous waste generators.
<b>AGENCY REVIEW OF FACILITY PLANS</b>	• Upon completing a plan, executive summaries of the plan shall be submitted to DE / DE may review a plan or executive summary to determine whether the document is adequate pursuant to rules developed under statute and with statutory provisions / Plans shall be retained at the facility / Generators shall permit a DE representative to review the plan to determine its adequacy.
<b>AGENCY REVIEW OF FACILITY PROGRESS REPORTS</b>	• Progress reports shall be prepared and submitted to DE in accordance with rules developed under statute. • DE may review an annual progress report to determine whether it is adequate pursuant to rules developed under statute and with statutory provisions.
<b>ADMINISTRATIVE PENALTIES FOR NON-COMPLIANCE</b>	• A penalty fee of either \$1000 or 3 times the amount of the generator's previous year's fee, whichever is greater, shall be charged if a generator fails to complete a plan, summary or progress report required by DE.
<b>PLAN APPROVAL CRITERIA</b>	• In determining the adequacy of any plan, executive summary or annual progress report, DE shall base its determination solely on whether the document is complete and prepared in accordance with statutory provisions.





# WISCONSIN



## STATE P2 PROGRAM SUMMARY

FOCUS	
TOXIC CHEMICAL / WASTE	•
ALL POLLUTANTS	
STRATEGIES	
MULTI-MEDIA	•
SOURCE REDUCTION	•
TOXIC USE REDUCTION	
REDUCTION TARGETS	
STATE WIDE	
FACILITY	
PREVENTION PLANS	
MANDATORY PLANS	
VOLUNTARY PLANS	•
PROGRESS REPORTS	
PLAN SUMMARIES	
PLAN EMPHASIS	
EMISSIONS / WASTE	•
LIFE CYCLE ANALYSIS	
PUBLIC ACCESS TO PLANS	
BY PETITION	
BY INDIVIDUALS	
BY AGENCY	
TECHNICAL ASSISTANCE	
FOR INDUSTRY	•
FOR COMMUNITY	
EDUCATION / PROMOTION	
OUTREACH (SEMINARS)	•
CURRICULUM DEVELOP.	
DATABASE / REFERRAL	•
TRAINING TO	
STATE / LOCAL AGENCIES	•
COMMUNITIES	
INDUSTRY	•

**PROGRAM NAME:** Wisconsin Department of Natural Resources (DNR)  
Hazardous Waste Minimization Program  
Office of Pollution Prevention

**ADDRESS:** PO Box 7921  
Madison, WI 53707

**CONTACT:** Lynn Persson (Hazardous Waste Minimization Program)  
Tom Eggert (Office of Pollution Prevention)

**PHONE:** (608) 267-3763  
(608) 267-9700

**FAX:** (608) 267-5231  
(608) 267-0560

**PROGRAM TYPE:** State Government / Non-Regulatory Office in a Regulatory Agency / P2 Assistance / Regulatory Assistance

**EXPERTISE:** Vehicle Maintenance / Wood Refinishing / Painting / Schools / Metal Finishing / Household Hazardous Waste / Database and Information Management / Small Business / Outreach / Pulp and Paper / Outreach

**P2 MEDIA:** Hazardous Waste / Multi-Media

**P2 RESOURCES:** 7 Full-time  
\$550, 000 (State and Federal Funding)

**SERVICES:** Pollution Prevention Information Clearinghouse / Training, Seminars, Workshops / Quarterly Newsletter / Waste Exchange / Research and Collaborative Projects / Small Quantity Generator Compliance Assistance / Information on Financial Assistance and Recognition Programs / Computer Searches or other Electronic Assistance / Multi-Media Program Coordination / Pollution Prevention Partnership

### PROGRAM OVERVIEW

Wisconsin DNR conducts site-specific waste audits, provides regulatory compliance assistance, offers water reduction and recycling demonstration grants to industry, provides training, and distributes information (through courses, seminars, and information clearinghouse, newsletters, brochures, case studies, and fact sheets). It also has an awards program. It provides workshops for state agency personnel on pollution prevention, as well as waste reduction workshops for specific businesses, industries, and



process users. The Department coordinates pollution prevention partnerships with industries and other groups.

The Office of Pollution Prevention creates a focus for multi-media policy development and partnerships with industry and other groups. It coordinates the Department's Prevention/Environment/Prosperity Awards, which recognize businesses' accomplishments in source reduction. It also coordinates staff training and identifies reporting and environmental needs related to pollution prevention.

The Hazardous Waste Minimization Program's Pollution Prevention Clearinghouse distributes more than 150 publications, publishes the newsletter "Waste Less News," holds workshops, provides small-quantity generator information, and distributes the Industrial Materials Exchange Service to help businesses and local government prevent pollution, minimize waste, and remain in compliance.

*Solid and Hazardous Waste Education Centre*

- In cooperation with the Wisconsin Department of Natural Resources, the University of Wisconsin's Extension Office offers workshops in solid waste reduction, recycling, and composting, as well as general and industry-specific workshops on minimization and pollution prevention. The center also works directly with industry and government to provide technical assistance.

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Guide to state pollution  
prevention technical assistance  
programs in the United States.

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